

DMGRATETM

FLOORING AND DECKING

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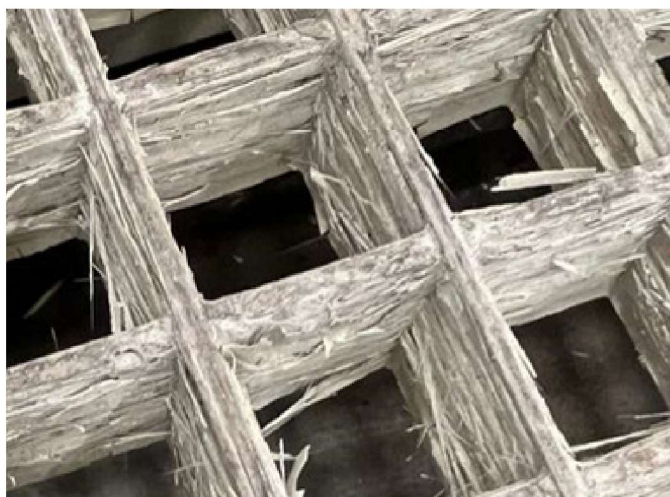
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PRODUCT OVERVIEW

DMGRATE™ is dedicated to delivering superior FRP flooring systems, setting a benchmark in quality within the industry. Crafted to endure challenging environments and adhere to rigorous safety standards, our products emerge as the ideal selection for diverse industries and applications. **Explore our extensive selection of customizable FRP gratings tailored to your unique specifications, ensuring a solution that perfectly aligns with your requirements.**



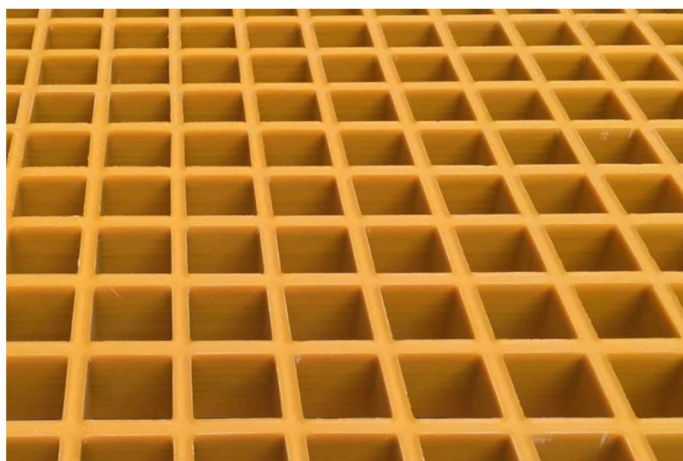
Our Competitors



DMGRATE™

Installing and maintaining our gratings is a seamless process, prioritizing user convenience. Not only are our products environmentally friendly, crafted from recycled materials, but they also contribute to sustainability by being recyclable at the end of their lifecycle. Choose solutions that align with your commitment to environmental responsibility.

Quality is our top priority. Unlike our competitors, we never cut corners. Our extensive FRP expertise sets us apart, ensuring a thorough understanding of our products.

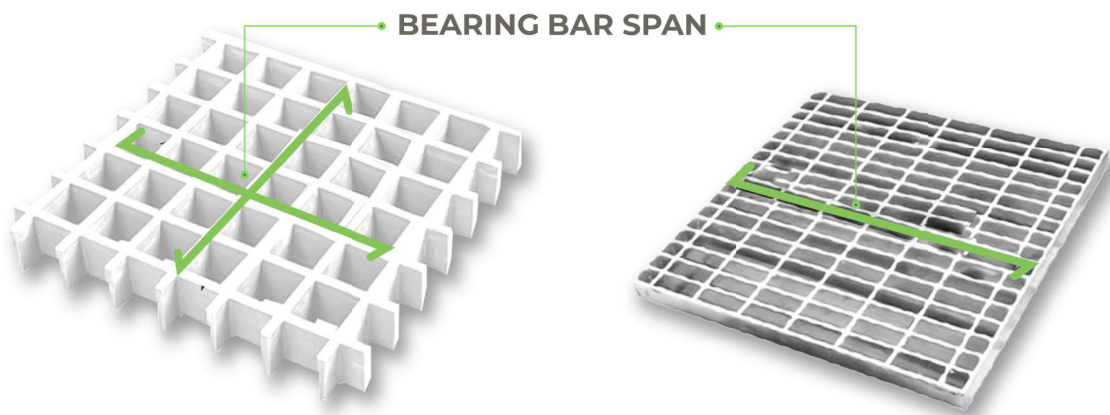


PROPERTIES

DMGRATE™ is committed to delivering the utmost quality in FRP flooring systems available in the market. Our team of experts employs cutting-edge materials and manufacturing techniques, ensuring that our gratings meet and exceed Ball quality standards and specifications.

Designed to be robust and enduring in rigorous environments, our gratings offer longevity and reliability. We provide expert guidance throughout the design, installation, and maintenance phases, tailoring our products to meet your exact requirements. Additionally, our comprehensive traceability system adds an extra layer of assurance, and our knowledgeable team is always ready to address any inquiries you may have.

When you choose **DMGRATE™** for your FRP grating needs, you not only receive top-notch quality products but also benefit from professional support at every step. With DMGRATE, every flooring and grating product is accompanied by verified test reports, design certifications, and a range of assurances that offer comprehensive coverage for your project. Trust in the confidence that comes with our thorough documentation, ensuring the success and reliability of your endeavor.



DMGRATE™ FRP square molded gratings exhibit exceptional **bi-directional** properties, meaning they offer superior strength and durability not only in one direction but in multiple directions. Traditional steel or aluminum gratings often have specific load-bearing capabilities along their primary axis, while our FRP gratings provide robust support and stability in various directions. This versatility ensures outstanding performance under diverse loading conditions, making them suitable for applications where forces may come from different angles. Moreover, DMGRATE FRP gratings stand out with their **resistance to corrosion, lightweight design for easy handling, and excellent electrical insulation**—qualities that collectively make them a superior choice compared to steel or aluminum alternatives across a wide range of industrial and commercial applications.

DMGRATE™ offers customizable and tailored mechanical properties, allowing for the attainment of values surpassing those specified in the provided table upon request.

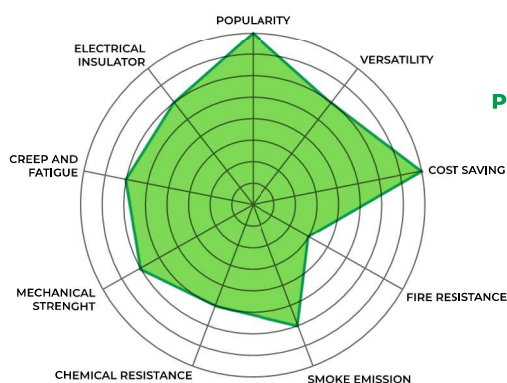
MECHANICAL PROPERTIES

PROPERTY	VALUE	UNIT	STANDARD
Tensile Strength	220	MPa	ASTM D638
Elastic Modulus	18000	MPa	ASTM D638
Flexural Strength	350	MPa	ASTM D790
Compressive Strength	220	MPa	ASTM D695
Density	1.65	kg/m ³	ASTM D792

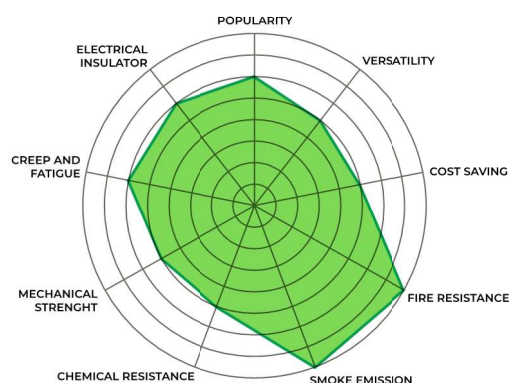
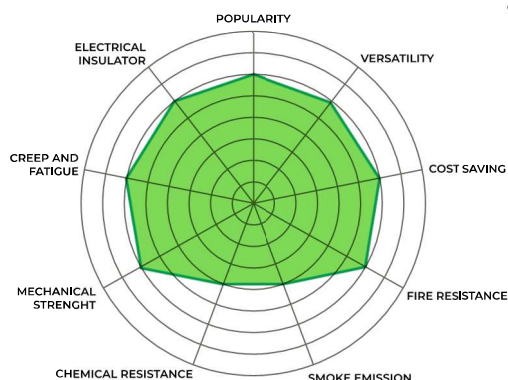
MATERIAL PROPERTIES

PROPERTY	VALUE	UNIT	STANDARD
Flamability	<25	-	ASTM E84
Arc Resistance	120	s	ASTM D495
Water Absorption	0.08	%	ASTM D570
Thermal Expansion	3.5×10^{-5}	MPa	ASTM D696
Dielectric Strength	>8	KV/mm	ASTM D149
Surface Resistance	3×10^{14}	Ω	ASTM D257

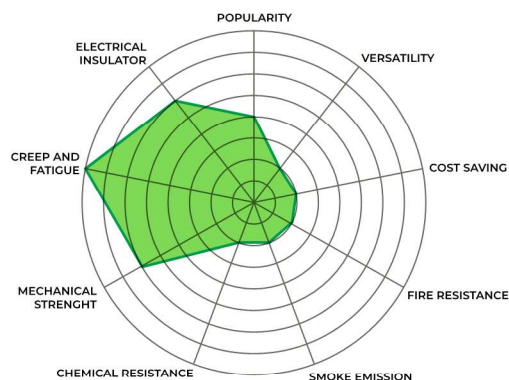
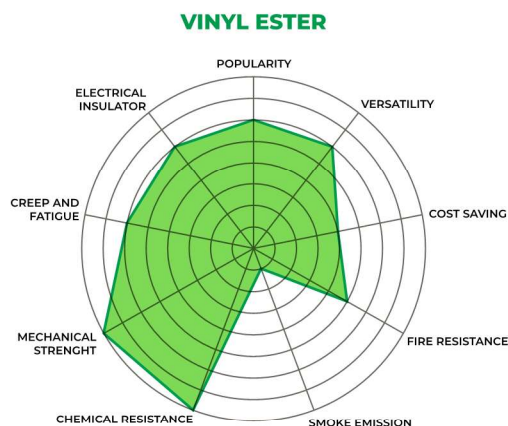
Our team of experts can provide guidance on selecting the most appropriate resin type based on your specific application, ensuring that your decision aligns with both Australian and international regulations for compliance and optimal performance.



SELF-EXTINGUISHING POLYESTER



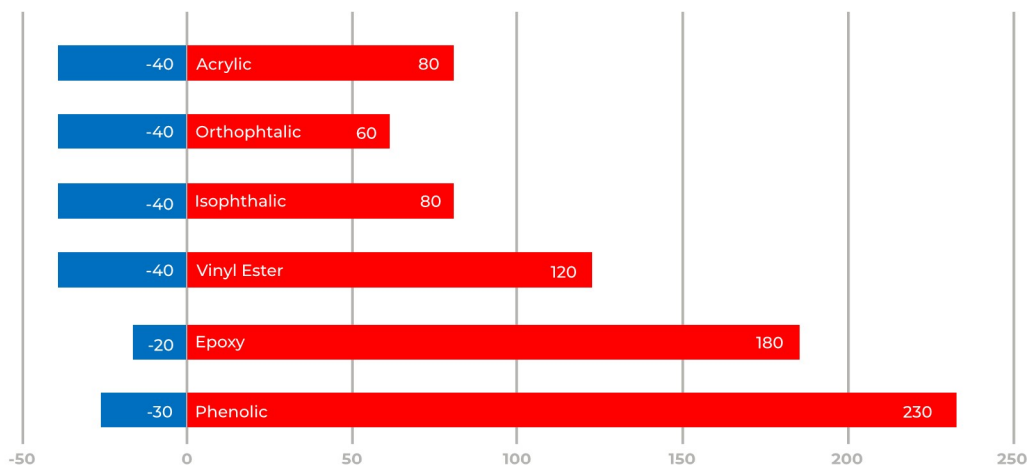
SELF-EXTINGUISHING ACRYLIC



EPOXY

TEMPERATURE RANGE

Optimal Operating Temperature Ranges



Temperature [Degree Celsius]

Min

max

DMGRATE™ FRP gratings offer an impressive operating temperature range, and this is influenced by the diverse resin formulations available. The careful selection of resins, including options such as Vinyl Ester and Phenolic, allows our gratings to excel in various temperature conditions.

CHEMICAL RESISTANCE

DMGRATE™ stands behind the reliability of our grating and flooring products, offering meticulously validated test report data. This comprehensive information encompasses the resistance capabilities of our FRP flooring options against various chemicals. It's crucial to recognize that the effectiveness of chemical resistance is influenced by both the resin type and the temperature of exposure.

Should you seek details on a chemical not covered in our resistance tables, we encourage direct communication with us. Our tables are designed with standard operating temperatures in mind.

The resin selection for our gratings is intricately tied to the intended application. Among our commonly employed resins, Orthophthalic polyester resin is tailored for light industrial use and saltwater exposure, providing moderate corrosion resistance without relying on fire-retardant substances.

In contrast, Isophthalic polyester resin surpasses in corrosion resistance and boasts enhanced fire-retardant properties. It emerges as the optimal choice for environments laden with aggressive chemicals and elevated temperatures.

We also maintain a limited inventory of gratings crafted from Vinyl Ester resin, a production typically tailored to specific orders.

For guidance on corrosion resistance regarding concentrations, temperatures, or chemicals not explicitly covered in this guide, we encourage you to reach out to DM Composites. The information presented in this Corrosion Guide is derived from our extensive expertise in fiberglass grating within corrosive applications. However, given the diverse conditions of use and potential corrosive mixtures, end-users are advised to conduct actual tests under their specific operating conditions.

It is essential to note that DM Composites' liability for claims arising from warranty breaches or negligence is capped at the purchase price of the material sold. Test coupons can be made available upon request.

CHEMICAL CHART

LEGEND:

GREAT = Designed for prolonged and intensive exposure to a variety of chemicals on gratings

GOOD = Engineered for frequent and regular encounters with chemical splashes and spills on gratings

MODERATE = Suited for occasional and sporadic exposure to chemical splashes and spills on gratings,

BAD = Discouraged for use in scenarios involving chemical exposure.

Chemical	Formula	Concentration at Room Temperature	Orthophthalic Resin	Isophthalic Resin	Vinyl Ester Resin
A					
Acetic Acid	CH ₃ COOH	10%	Great	Great	Great
Acetic Acid	CH ₃ COOH	25%	Good	Great	Great
Acetic Acid	CH ₃ COOH	50%	Moderate	Good	Great
Acetone	(CH ₃) ₂ CO	25%	Bad	Bad	Moderate
Acetone	(CH ₃) ₂ CO	100%	Bad	Bad	Bad
Aluminum	Al	-	Great	Great	Great
Aluminum Hydroxide	Al(OH) ₃	5%	Moderate	Good	Great
Aluminum Sulphate	Al ₂ (SO ₄) ₃	100%	Great	Great	Great
Ammonium Chloride	NH ₄ Cl	-	Great	Great	Great
Ammonium Hydroxide	NH ₃	5%	Bad	Moderate	Great
Ammonium Sulphate	(NH ₄) ₂ SO ₄	-	Great	Great	Great
B					
Benzene	C ₆ H ₆	-	Bad	Bad	Moderate
C					
Calcium Bisulfite	Ca(HSO ₃) ₂	-	Good	Great	Great
Calcium Hypochlorite	Ca(ClO) ₂	10%	Bad	Good	Great
Calcium Hypochlorite	Ca(ClO) ₂	20%	Bad	Moderate	Great
Carbon Tetrachloride	CCl ₄	-	Moderate	Moderate	Good
Chlorine Bleach	NaOCl	-	Moderate	Good	Great
Chlorine Gas	Cl ₂	-	Bad	Bad	Great
Chloroacetic Acid	ClCH ₂ CO ₂ H	50%	Bad	Bad	Moderate
Chlorobenzene	C ₆ H ₅ Cl	100%	Bad	Bad	Bad
Chloroform	CHCl ₃	100%	Bad	Bad	Bad
Chromic Acid	H ₂ CrO ₄	10%	Moderate	Good	Great
Chromic Acid	H ₂ CrO ₄	20%	Bad	Bad	Good
Chromic Acid	H ₂ CrO ₄	30%	Bad	Bad	Bad
Citric Acid	C ₆ H ₈ O ₇	100%	Great	Great	Great
Copper Sulfate	CuSO ₄	-	Good	Great	Great
Crude Petroleum	C _n H _{2n+2}	-	Great	Great	Great
Cyclohexane	C ₆ H ₁₂	-	Bad	Bad	Great
D					
Detergents (Sulfonates)	RSO ₃	-	Moderate	Good	Great
Dichloro Benzene	C ₆ H ₄ Cl ₂	-	Bad	Bad	Bad
E					
Ethanol	C ₂ H ₆ O	-	Moderate	Good	Great
F					
Ferric (Iron III) Chloride	FeCl ₃	-	Great	Great	Great
Ferric (Iron III) Chloride	Fe ₂ (SO ₄) ₃	-	Great	Great	Great
Formaldehyde	CH ₂ O	-	Moderate	Good	Great
Formic Acid	CH ₂ O ₂	-	Moderate	Good	Great
Fuel (Diesel, Jet, Petrol)	-	-	Good	Great	Great
Fuel Oil	-	-	Great	Great	Great

G					
Glycerine	C ₃ H ₈ O ₃	-	Great	Great	Great
H					
Heptane	C ₇ H ₁₆	100%	Moderate	Good	Great
Hexane	C ₆ H ₁₄	100%	Moderate	Good	Great
Hydrobromic Acid	HBr	25%	Moderate	Good	Great
Hydrobromic Acid	HBr	50%	Moderate	Good	Great
Hydrochloric Acid	HCl	20%	Moderate	Good	Great
Hydrochloric Acid (Concentrated)	HCl	37%	Moderate	Good	Great
Hydrofluoric Acid	HF	-	Bad	Bad	Bad
Hydrogren Peroxide	H ₂ O ₂	30%	Bad	Bad	Great
K					
Kerosene	C ₁₂ H ₂₆ C ₁₅ H ₃₂	-	Moderate	Good	Great
L					
Lactic Acid	C ₃ H ₆ O ₃	5%	Good	Great	Great
M					
Mercury (II) Chloride	HgCl ₂	-	Good	Great	Great
Methanol	CH ₃ OH	-	Bad	Moderate	Great
Methyl Chloride (Liquid or Gas)	CH ₃ Cl	-	Bad	Bad	Bad
N					
Naphtha	C _n H _{2n}	100%	Great	Great	Great
Nitric Acid	HNO ₃	5%	Good	Great	Great
Nitric Acid	HNO ₃	20%	Moderate	Good	Great
Nitric Acid	HNO ₃	35%	Bad	Bad	Good
Nitric Acid (Fumes)	HNO ₃	-	Bad	Bad	Bad
O					
Ozone (Ozonation Process WWTP)	O ₃	100%	Great	Great	Great
P					
Phosphoric Acid	H ₃ PO ₄	10%	Great	Great	Great
Phosphoric Acid	H ₃ PO ₄	75%	Good	Great	Great
S					
Sea Water	H ₂ O + NaCl	-	Great	Great	Great
Sodium Chloride (Saturated)	NaCl	-	Great	Great	Great
Sodium Hydroxide	NaOH	25%	Bad	Moderate	Great
Sodium Hydroxide	NaOH	50%	Bad	Moderate	Great
Sodium Hypochlorite	NaClO	10%	Moderate	Good	Great
Sulphuric Acid	H ₂ SO ₄	10%	Good	Great	Great
Sulphuric Acid	H ₂ SO ₄	25%	Moderate	Good	Great
Sulphuric Acid	H ₂ SO ₄	50%	Bad	Moderate	Great
Sulphuric Acid	H ₂ SO ₄	75%	Bad	Moderate	Great
T					
Toluene	C ₆ H ₅ CH ₃	100%	Bad	Bad	Moderate
Trisodium Phosphate	Na ₃ PO ₄	50%	Moderate	Good	Great
U					
Urea	CH ₄ N ₂ O	-	Moderate	Good	Great
W					
Water (Distilled/Deionized)	H ₂ O	100%	Great	Great	Great
X					
Xylene	C ₈ H ₁₀	30%	Bad	Bad	Bad
Z					
Zinc Chlorate	Zn(ClO ₃) ₂	-	Good	Great	Great
Zinc Sulphate	ZnSO ₄	-	Good	Great	Great

ANTI-SLIP PROPERTIES

Designed to deliver optimal performance, **DMGRATE™** FRP Gratings offer unparalleled slip resistance in wet, icy, or oily environments, effectively safeguarding individuals against potential slips and falls. Its innovative open mesh configuration not only prevents the accumulation of liquids but also facilitates air circulation. Simultaneously, the grating acts as a protective barrier, capturing any falling items or debris to prevent harm to the underlying surfaces.

DMGRATE™ empowers businesses across diverse sectors including Construction, Rail, Aviation, Marine, Offshore, Industrial, and Utility, ensuring compliance with rigorous health and safety standards in any working environment. Rigorously tested according to the AS 4586 criteria ("Slip Resistance Classification of new pedestrian surface materials") for industrial flooring in wet areas, its slip resistance excels. The coefficient of friction (CoF) is precisely calculated by determining the mean angle of inclination that an operator can safely maintain when the flooring is exposed to a continuous water stream.

**CLASSIFICATION OF PEDESTRIAN
SURFACE MATERIALS ACCORDING TO
THE AS 4586 WET PENDULUM TEST**

CLASS	PENDULUM SRV (SEE NOTE 1)	
	SLIDER 96	SLIDER 55
P5	>54	>44
P4	45 - 54	40 - 44
P3	35 - 44	35 - 39
P2	25 - 34	20 - 34
P1	12 - 24	<20
P0	<12	

**CLASSIFICATION OF PEDESTRIAN
SURFACE MATERIALS ACCORDING
TO THE OIL-WET INCLINDING TEST**

CLASSIFICATION	ANGLE, DEGREE
R9	<6
R10	≥6<10
R11	≥10<19
R12	>19<27
R13	≥27<35

Our industrial gritted open mesh molded gratings are classified as P5 and R13 according to AS 4586, signifying the highest surface material classification for anti-slip properties. This distinction underscores the superior performance of **DMGRATE™** FRP gratings compared to traditional materials like metal grating or chequer plate.

SELF-EXTINGUISHING PROPERTIES

DMGRATE™ FRP gratings go beyond conventional safety measures. Upon request, our gratings can be enhanced with self-extinguishing properties, ensuring an added layer of protection against fire hazards.

COMPLIANCE TO ASTM E-84 STANDARD:

DMGRATE™ FRP gratings can meet the stringent requirements of ASTM E-84, the "Standard Test Method for Surface Burning Characteristics of Building Materials." Achieving Class 1 or Class A classification, our gratings boast a Flame-Spread Index (FSI) of <25 and a Smoke-Development Index (SDI) of <450.

	FLAME-SPREAD INDEX (FSI)	SMOKE DEVELOPEMENT INDEX (SDI)
CLASS 1 OR CLASS A	0-25	450 MAXIMUM
CLASS 2 OR CLASS B	26-75	450 MAXIMUM
CLASS 3 OR CLASS C	76-200	450 MAXIMUM

ADHERENCE TO AS 1530.3 STANDARD:

In addition, our FRP gratings can align with AS 1530.3, the "Methods for fire tests on building materials, components and structures." This compliance ensures that our gratings meet the highest standards for fire safety in building materials.

FIRE RESISTANCE PROPERTIES

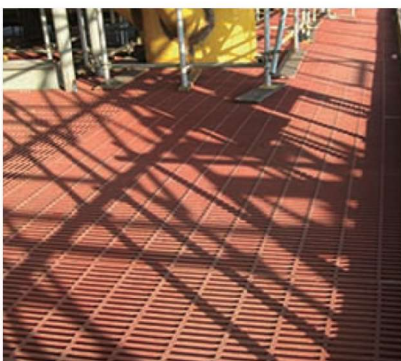
DMGRATE™ FRP gratings also offers not just compliance but exceptional performance in fire resistance. While self-extinguishing properties refer to the material's ability to stop burning once the external flame source is removed, fire resistance implies sustained structural protection against flames and high temperatures.

STANDARDS COMPLIANCE:

ASTM-E119: Our gratings can meet ASTM-E119 standards, ensuring reliable fire-resistant properties.

ASTM F3059: Compliant with ASTM F3059, our gratings can also adhere to rigorous fire testing protocols.

USCG Level 2: Classified as US Coast Guard (USCG) Level 2, our gratings can be recognized for their superior fire-resistant capabilities.



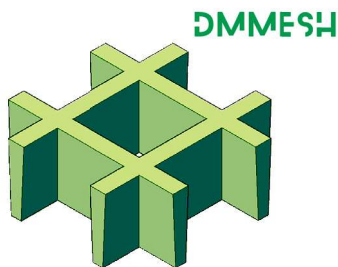
ADHERENCE TO AS 1530.4 STANDARD:

In addition, our FRP gratings can align with AS 1530.4, the "Methods for fire tests on building materials, components and structures." This compliance ensures that our gratings meet the highest standards for fire safety in building materials.

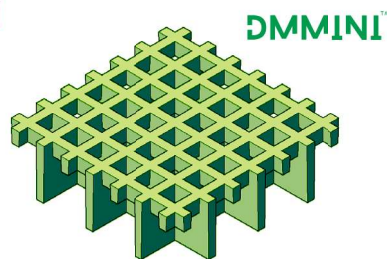
FLOORING TYPES

DMGRATE™ offers an extensive array of grating products tailored to diverse industrial and commercial needs. Our commitment extends beyond the basics of strength, color, aesthetics, and environmental considerations.

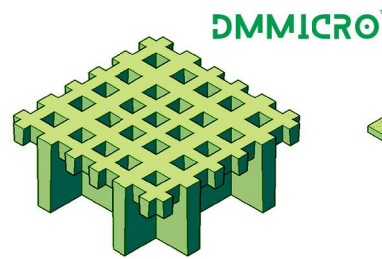
What sets us apart from competitors in the realm of similar products? The distinction lies in our products being certified by a panel of seasoned FRP engineers and quality officers. This rigorous evaluation ensures not only 100% compliance with quality standards but also a meticulous adherence to design excellence. Additionally, our gratings can be tailored to your specifications upon request, offering customization options such as different mesh openings, thickness, surface treatments, colors, and resin choices.



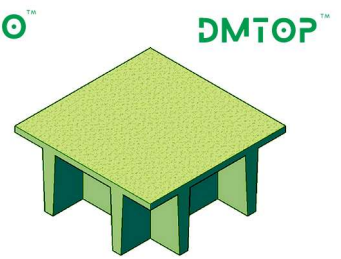
The preferred cost-effective and widely embraced choice.



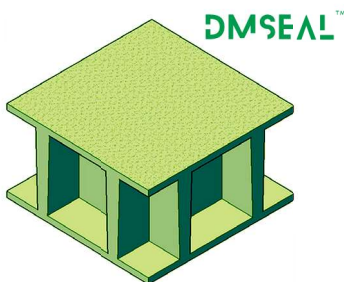
A versatile solution ensuring prevention of object fall-through.



Ideal for those walking barefoot, using wheelchairs, or wearing high heels.



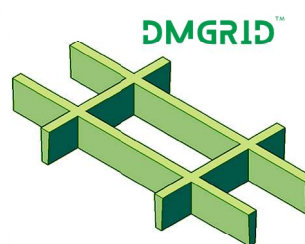
The 'Liquid Resistant' product, featuring a solid top to prevent water permeation effectively.



A sandwich grating offering dual sealing on both top and bottom surfaces.



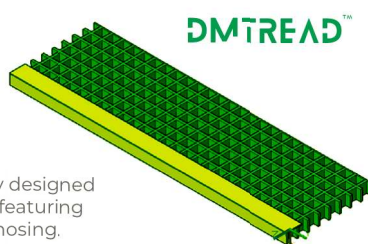
Engineered with a broader mesh opening, perfect for addressing wave loadings.



A popular choice for fencing systems.



The sturdiest mesh available, catering to heavy-duty applications.



Specifically designed for stairs, featuring safety nosing.



The ideal solution for those requiring extended spans.

DMGRATE™ provides a cost-effective and innovative alternative to conventional materials such as metal, steel, aluminium, and plastic gratings. Combining the strength of steel with a lightweight design, our gratings are corrosion-resistant and boast an extended lifespan, even in challenging environments. Furthermore, they are user-friendly, requiring no special tools for installation.



**LIGHTWEIGHT
CONSTRUCTION**



**IMPRESSIVE
STRENGTH**



**CORROSION
RESISTANCE**



**CHEMICAL
RESILIENCE**



**ELECTRICAL
INSULATION**



**EASY
HANDLING**



**THERMAL
INSULATION**



**MINIMAL
MAINTENANCE
REQUIREMENTS**

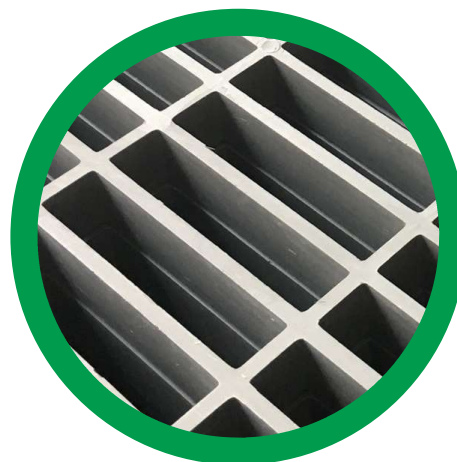


**SUSTAINABLE
MANUFACTURE**

Experience a versatile and durable solution that goes beyond traditional options, meeting your project needs with efficiency and longevity.



**CONVENTIONAL
STEEL GRATINGS**

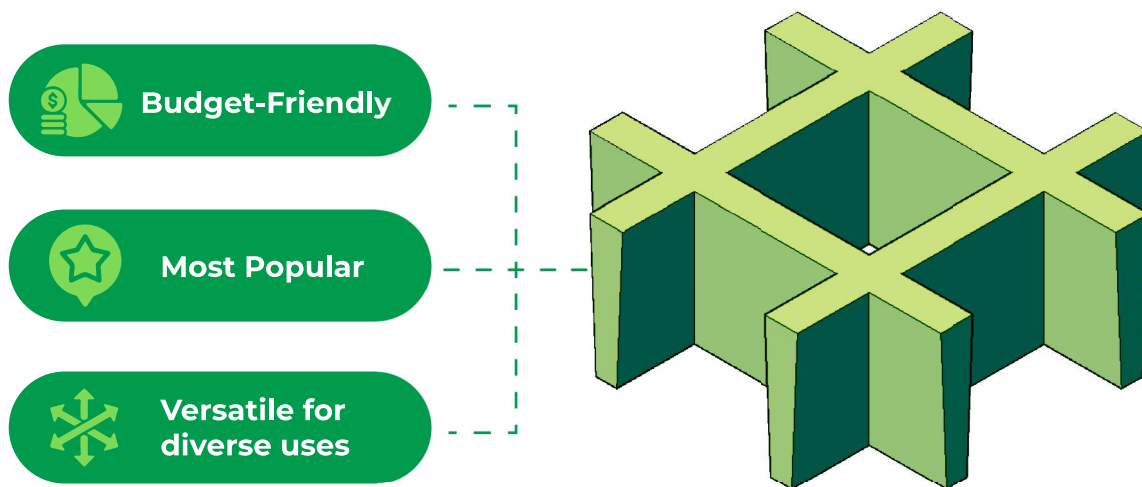


DMGRATE™

DMMESH™

DMGRATE™ is dedicated to delivering top-tier solutions, offering a range of premium 38 x 38mm mesh FRP grating options crafted from both polyester and Vinyl Ester resin. The versatility and durability of our standard **DMMESH™** grating make it a standout choice for diverse industrial and commercial applications.

Beyond its adaptability, our standard grating boasts hassle-free installation and demands minimal maintenance, embodying efficiency and cost-effectiveness for a variety of projects. It stands as our preferred product, consistently meeting the unique requirements of our clients with excellence.



Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, gritted surfaces, and resins. Among our offerings, the standard mesh grating panels are available in multiple sizes, with the popular dimension being 1220 x 3660 mm. These panels feature a mesh size of 38 x 38 mm and a hole opening of 32 x 32 mm.

Kindly seek detailed specifications for **DMMESH™** from our team of experts, covering aspects such as **sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.**

DMMESH™

DMGRATE™ offers a diverse selection of DMMESH™ FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

DMMESH		UDL - deflection [mm]			
Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
15	500	2.0	5.0	6.0	10.0
	600	2.0	5.0	6.0	10.0
25	500	0.3	0.8	1.0	1.6
	600	0.7	1.6	1.9	3.2
	700	1.2	3.0	3.6	5.9
	800	2.0	5.0	6.1	10.1
30	600	0.4	0.9	1.1	1.8
	700	0.7	1.6	2.0	3.3
	800	1.1	2.8	3.4	5.6
	900	1.8	4.5	5.4	8.9
	1000	2.7	6.8	8.2	13.6
38	700	0.3	0.8	1.0	1.6
	800	0.6	1.4	1.6	2.7
	900	0.9	2.2	2.6	4.4
	1000	1.3	3.3	4.0	6.7
	1100	2.0	4.9	5.8	9.7
	1200	2.8	6.9	8.3	13.8

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

DM Composites assumes no liability for any interpretation of the table by our clients that deviates from our recommendations.

DMMINI™

DMGRATE™ is dedicated to delivering excellence, offering premium **DMMINI™** FRP grating crafted with precision. This exceptional product is available in both Polyester and Vinyl Ester resin options, featuring a 19 x 19 mm hole size only.

Tailored for commercial and industrial applications that demand a smaller hole size, our mini mesh grating stands out as an ideal choice, especially for areas with safety requirements like platforms and walkways. Not only does the smaller hole size enhance aesthetics, but it also provides superior strength compared to standard grating, enabling larger spans under the same load. Additionally, it ensures safety by preventing objects from falling through, meeting the 20-mm-diameter ball requirements.



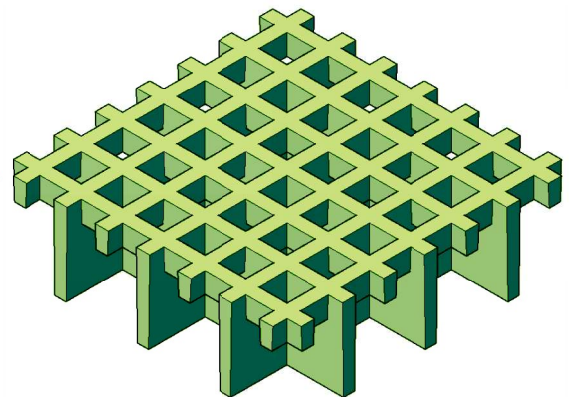
Aesthetically pleasing



Ideal for industrial and commercial applications



Prevents objects from falling through (20-mm-diameter ball requirement)



Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, gritted surfaces, and resins. Among our offerings, the mini mesh grating panels are available in multiple sizes, with the popular dimension being 1247 x 3687 mm. These panels feature a mesh size of 19 x 19 mm and a hole opening of 12 x 12 mm.

Kindly seek detailed specifications for DMMINI™ from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMMINI™

DMMINI		UDL - deflection [mm]			
Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
30	600	0.3	0.8	0.9	1.5
	700	0.6	1.4	1.7	2.8
	800	1.0	2.4	2.9	4.8
	900	1.5	3.9	4.6	7.7
	1000	2.4	5.9	7.1	11.8
38	700	0.2	0.6	0.8	1.3
	800	0.4	1.1	1.3	2.2
	900	0.7	1.7	2.1	3.4
	1000	1.0	2.6	3.1	5.2
	1100	1.5	3.8	4.6	7.6
	1200	2.2	5.4	6.5	10.8

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

DMGRATE™ offers a diverse selection of DMMINI™ FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

STEP 1
Determine
your load



STEP 2
Define
your span



STEP 3
Check your
deflection



Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

DM Composites™ assumes no liability for any interpretation of the table by our clients that deviates from our recommendations.

DMMINI™ grating sheets may exhibit slight warping due to their manufacturing process, but this doesn't impact structural integrity. Consult our experts for suitable bolting options.

DMMICRO™

DMGRATE™ is devoted to providing top-notch solutions, presenting our customers with the highest quality 13 x 13 mm **DMMICRO™** FRP micro mesh grating featuring a 7 x 7 mm mesh opening. This exceptional product is available in both Polyester and Vinyl Ester resin options.

The intricately woven mesh design of our **DMMICRO™** grating not only ensures exceptional strength and durability but also creates a smooth and comfortable surface. Tailored for residential applications and public infrastructures, the small hole size adds to its appeal, providing an ideal combination of sturdiness and comfort.

Moreover, the opaque nature of the micro mesh grating serves as a perfect solution for blocking out sunlight, creating shaded areas for enhanced comfort. These micromesh gratings are thoughtfully designed to be the optimal choice for areas frequented by wheelchairs and high heels, offering a blend of functionality and style.



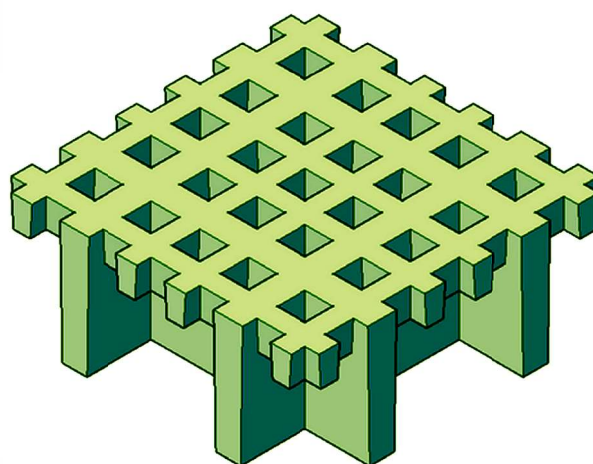
**Bare-Foot Approved
and Strong**



Blocks Sunlight



**Suitable for Wheelchairs
and high heels**



Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, gritted surfaces, and resins. Among our offerings, the micro mesh grating panels are available in multiple sizes, with the popular dimension being 1247 x 3687 mm. These panels feature a mesh size of 19 x 19 mm and a hole opening of 12 x 12 mm.

Kindly seek detailed specifications for DMMINI™ from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMMICRO™

DMGRATE™ offers a diverse selection of **DMMICRO™** FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

DMMICRO		UDL - deflection [mm]			
Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
22	600	0.7	1.8	2.2	3.7
	700	1.4	3.4	4.1	6.7
	800	2.3	5.8	6.9	11.5
25	700	0.9	2.1	2.6	4.3
	800	1.5	3.6	4.4	7.3
	900	2.3	5.8	7.0	11.6
30	700	0.5	1.3	1.6	2.7
	800	0.9	2.3	2.7	4.6
	900	1.5	3.7	4.4	7.3
	1000	2.2	5.6	6.7	11.1
	1100	3.3	8.1	9.7	16.2
38	700	0.3	0.7	0.8	1.3
	800	0.5	1.1	1.4	2.3
	900	0.7	1.8	2.2	3.6
	1000	1.1	2.8	3.3	5.5
	1100	1.6	4.0	4.8	8.1
	1200	2.3	5.7	6.9	11.4

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

STEP 1
Determine your load



STEP 2
Define your span



STEP 3
Check your deflection



Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

DM Composites™ assumes no liability for any interpretation of the table by our clients that deviates from our recommendations.

DMMICRO™ grating sheets may exhibit slight warping due to their manufacturing process, but this doesn't impact structural integrity. Consult our experts for suitable bolting options.

DMTOP™

DMGRATE™ takes pride in offering a premium solution – **DMTOP™** FRP grating, available in both Polyester and Vinyl Ester resin. Our Solid Top is crafted by laminating a standard FRP mesh grating with an FRP gritted plate on the top surface. This ingenious design effectively conceals the mesh openings, creating an opaque surface that proves ideal for applications requiring an impermeable floor.

Tailored for versatility, this solution is perfect for areas with wheeled trolleys, ensuring impermeability to prevent water passage. The customizable surface, including variations in thickness and an anti-slip surface, guarantees a tailored fit for specific needs. With no light transmittance, drainage, or visual inspection required underneath the grating, it stands as an efficient and effective choice for various applications.



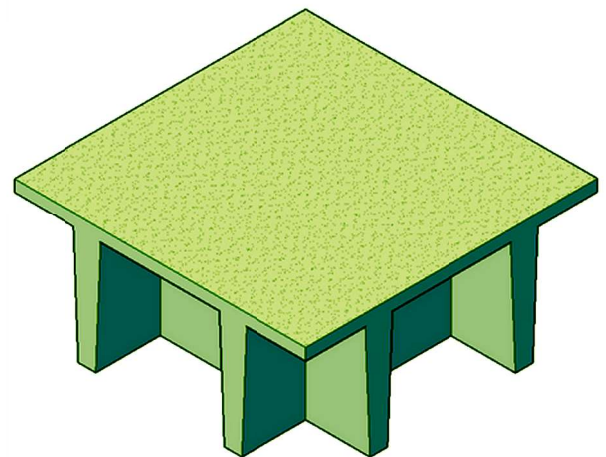
**Suitable for
Wheeled Trolleys**



**Impermeable Floor,
no water passage**



**Customizable Surface (Smooth,
Gritted and Chequered)**



This sealing feature is also available for other grating categories like **DMGRID™, **DMLOAD™**, and **DMWIDE™**, ensuring a comprehensive and adaptable solution across the **DMGRATE™** product line.**

Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, gritted surfaces, and resins. Among our offerings, the solid top grating panels are available in multiple sizes, with the popular dimension being 1220 x 3660 mm. These panels come with a robust top layer, available in either 3 or 5 mm thickness.

Kindly seek detailed specifications for **DMTOP™ from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.**

DMTOP™

DMGRATE™ offers a diverse selection of DMTOP™ FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

DMTOP		UDL - deflection [mm]			
Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
30+3	800	0.5	1.2	1.5	2.5
	900	0.8	2.0	2.4	3.9
	1000	1.2	3.0	3.6	6.0
	1100	1.8	4.4	5.2	8.7
	1200	2.5	6.2	7.4	12.4
30+5	900	0.6	1.5	1.8	3.1
	1000	0.9	2.3	2.8	4.6
	1100	1.4	3.4	4.1	6.8
	1200	1.9	4.8	5.8	9.6
	1300	2.6	6.6	7.9	13.2
38+3	900	0.4	1.1	1.3	2.1
	1000	0.7	1.6	2.0	3.2
	1100	1.0	2.4	2.8	4.7
	1200	1.3	3.4	4.0	6.7
	1300	1.9	4.6	5.5	9.2
	1400	2.5	6.2	7.4	12.4
38+5	1000	0.3	1.3	1.5	2.6
	1100	0.8	1.9	2.3	3.8
	1200	1.1	2.7	3.2	5.3
	1300	1.5	3.7	4.4	7.3
	1400	2.0	4.9	5.9	9.8
	1500	2.6	6.5	7.7	12.9

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

STEP 1
Determine
your load



STEP 2
Define
your span



STEP 3
Check your
deflection



Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

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DMSEAL™

DMGRATE™ has also introduced DMSEAL FRP grating, an innovative solution distinguished by its unique sandwich configuration. Unlike **DMTOP™**, **DMSEAL™** is sealed on both the top and bottom, elevating its robustness and impermeability. This sealing property is especially advantageous for diverse industries, including wastewater treatment plants in the water industry, where odor control is crucial.

DMSEAL™ features a smooth surface on the bottom seal and offers customization options for the top seal surface, whether smooth, gritted, or chequered. This adaptability makes it a versatile choice for various applications, allowing it to meet specific requirements with precision. The dual-sealed design enhances impermeability, making **DMSEAL™** a reliable solution for environments where preventing water passage is paramount.



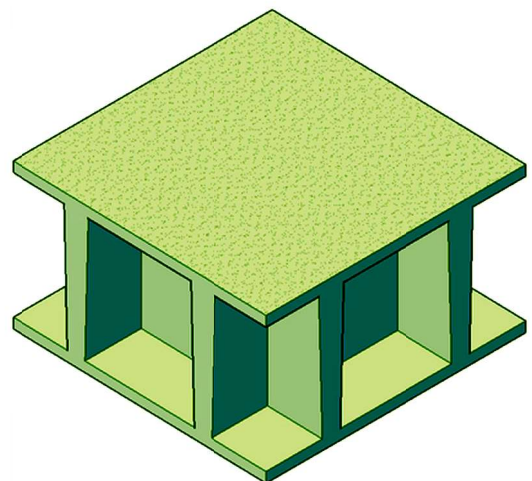
Suitable for Odour control systems



Increased Impermeability and robustness



Customizable Surface (Smooth, Gritted and Chequered)



This double sealing feature is also available for other grating categories like **DMGRID™**, **DMLOAD™**, and **DMWIDE™**, ensuring a comprehensive and adaptable solution across the **DMGRATE** product line.

Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, gritted surfaces, and resins. Among our offerings, **DMSEAL™** grating panels are available in multiple sizes, with the popular dimension being 1220 x 3660 mm. These panels come with a robust top and bottom layers, available in either 3 or 5 mm thickness.

Kindly seek detailed specifications for **DMSEAL™** from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMSEAL™

DMGRATE™ offers a diverse selection of DMSEAL™ FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

DMSEAL		UDL - deflection [mm]			
Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
30+3+3	1000	0.5	1.2	1.5	2.5
	1100	0.7	1.8	2.2	3.6
	1200	1.0	2.5	3.0	5.1
	1300	1.4	3.5	4.2	7.0
	1400	1.9	4.7	5.6	9.4
30+5+5	1100	0.4	1.1	1.3	2.1
	1200	0.6	1.5	1.8	3.0
	1300	0.8	2.0	2.4	4.1
	1400	1.1	2.7	3.3	5.5
	1500	1.4	3.6	4.3	7.2
38+3+3	1100	0.4	1.1	1.3	2.2
	1200	0.6	1.6	1.9	3.1
	1300	0.9	2.1	2.6	4.3
	1400	1.2	2.9	3.5	5.8
	1500	1.5	3.8	4.5	7.6
	1600	2.0	4.9	5.9	9.8
38+5+5	1200	0.4	1.0	1.1	1.9
	1300	0.5	1.3	1.6	2.6
	1400	0.7	1.8	2.1	3.5
	1500	0.9	2.3	2.8	4.6
	1600	1.2	3.0	3.6	6.0
	1700	1.5	3.8	4.5	7.6

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

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your load



STEP 2
Define
your span



STEP 3
Check your
deflection

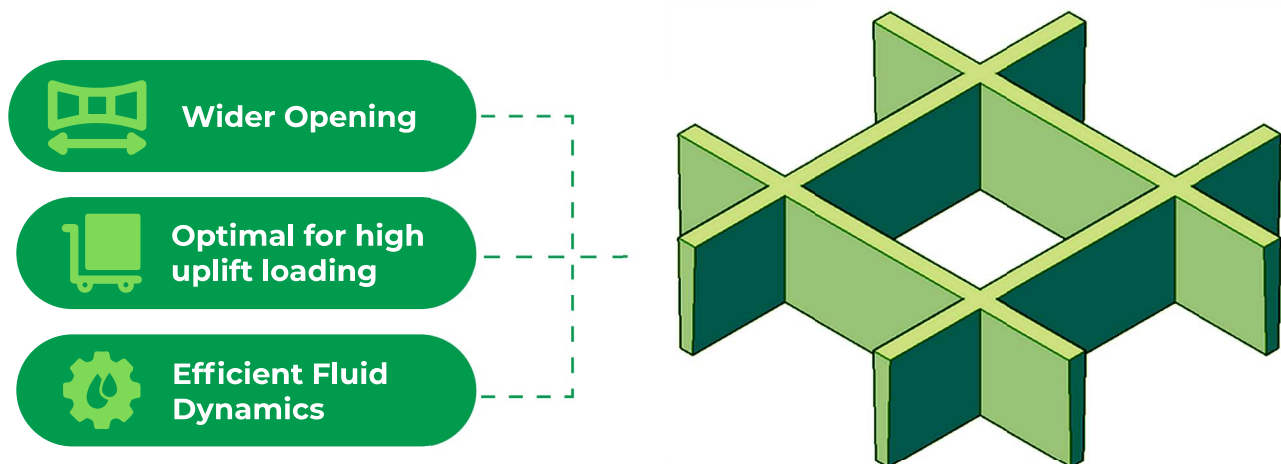


Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

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DMWIDE™

DMGRATE™ offers **DMWIDE™**, a specialized solution for applications requiring a wider mesh opening compared to the standard **DMMESH™**. This design proves particularly advantageous in scenarios such as wharfs positioned in the splash zone, where high uplift loading, such as wave loads, is a prevalent concern. The wider mesh opening in **DMWIDE™** ensures a larger aperture, minimizing resistance to fluids like water and wind. This feature is especially crucial in environments where fluid flow is a significant factor, enhancing the efficiency and performance of the grating. **DMWIDE™** unique design caters to specific demands, making it a reliable choice for applications where a broader opening is essential for optimal functionality and reduced fluid resistance.



Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, gritted surfaces, and resins. Among our offerings, **DMWIDE™** grating panels are available in multiple sizes, with the popular dimension being 1220 x 3660 mm. These panels feature a mesh size of 50 x 50 mm and a hole opening of 43 x 43 mm.

Kindly seek detailed specifications for **DMWIDE™** from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMWIDE™

DMGRATE™ offers a diverse selection of DMWIDE™ FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

DMWIDE		UDL - deflection [mm]			
Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
13	300	0.3	0.8	1.0	1.7
	400	1.0	2.6	3.1	5.2
	500	2.5	6.4	7.6	12.7
50	1100	1.0	2.5	3.0	4.9
	1200	1.4	3.5	4.2	7.0
	1300	1.9	4.8	5.7	9.6
	1400	2.6	6.4	7.7	12.9

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

STEP 1
Determine your load



STEP 2
Define your span



STEP 3
Check your deflection



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DMGRID™

DMGRATE™ lines up a distinctive grating category called **DMGRID™**, which presents a FRP moulded rectangular mesh design tailored for various applications where a rectangular opening is preferred. This grating option proves highly beneficial when maintaining the aesthetics of a wall or fencing system, as many fences feature rectangular mesh patterns. The visually appealing and versatile design can complement overall design requirements, making it an excellent choice for applications where both form and function are essential considerations.

In scenarios where efficient drainage is crucial, especially for liquids or debris to flow through the grating, the rectangular mesh openings of **DMGRID™** play a vital role. The elongated shape of the openings facilitates improved flow in one direction, enhancing drainage efficiency. Additionally, the elongated configuration allows for more effective transfer of loads along a single axis, making **DMGRID™** an optimal choice when loads are predominantly applied in one direction.



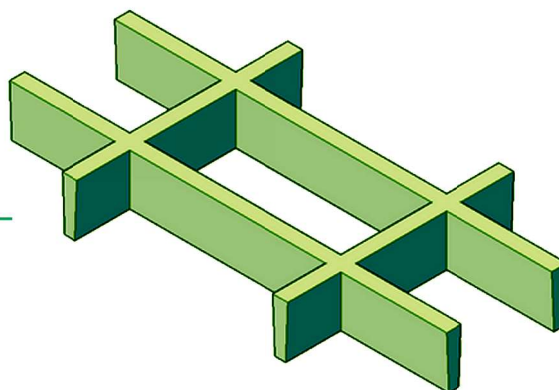
Rectangular Mesh Design for Fencing Systems or Trenches



Efficient Drainage and reduced drag



Optimized Load Transfer in 1 direction



Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, surfaces, and resins. Among our offerings, **DMGRID™** grating panels are available in multiple sizes, with the popular dimension being 1220 x 3660 mm. These panels feature a mesh size of 50 x 50 mm and a hole opening of 43 x 43 mm.

Kindly seek detailed specifications for **DMWIDE™** from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMGRID™

DMGRATE™ offers a diverse selection of DMGRID™ FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

DMGRID			UDL - deflection [mm]			
Mesh Centreline	Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
100x25	25	700	0.7	1.7	2.1	3.5
		800	1.2	3.0	3.5	5.9
		900	1.9	4.7	5.7	9.4
		1000	2.9	7.2	8.6	14.4
100x50	28	600	0.6	1.5	1.8	3.0
		700	1.1	2.8	3.3	5.6
		800	1.9	4.7	5.7	9.5
		900	3.0	7.6	9.1	15.2
100x60	28	500	0.4	0.9	1.1	1.8
		600	0.7	1.8	2.2	3.6
		700	1.3	3.3	4.0	6.7
		800	2.3	5.7	6.8	11.4
152x25	38	1100	1.0	2.6	3.1	5.1
		1200	1.5	3.6	4.4	7.3
		1300	2.0	5.0	6.0	10.0
		1400	2.7	6.7	8.1	13.4
152x38	38	900	0.8	1.9	2.3	3.8
		1000	1.2	2.9	3.5	5.8
		1100	1.7	4.2	5.1	8.5
		1200	2.4	6.0	7.2	12.0

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

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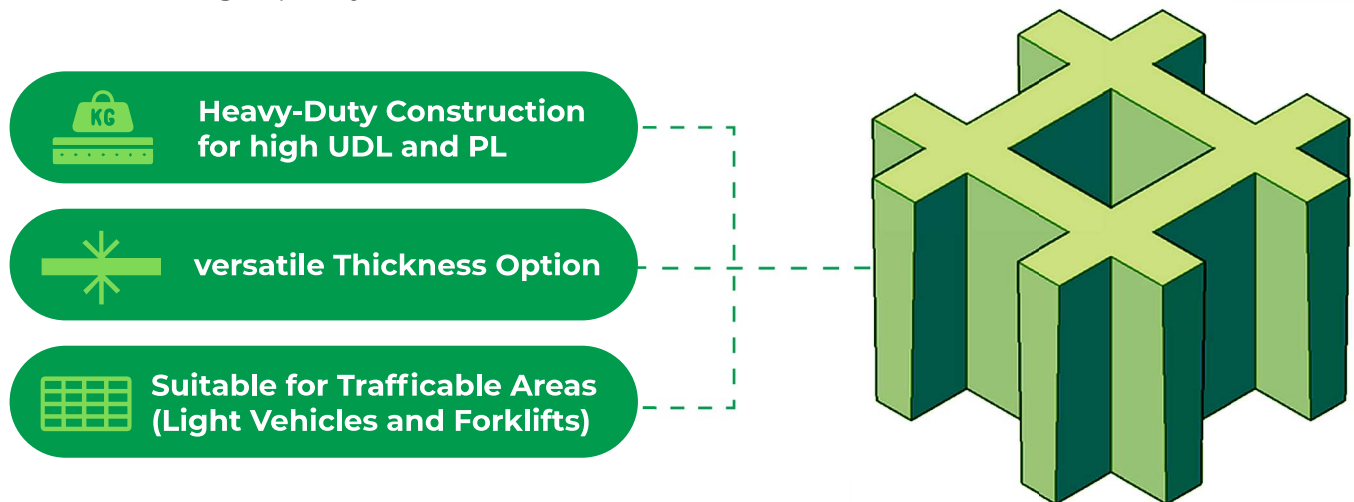
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DMLOAD™

DMGRATE™ also includes a robust grating category, **DMLOAD™**, which has been engineered specifically for high-load applications, whether they involve Uniformly Distributed Loads (UDL) or Point Loads (PL). With thicknesses starting from 50 mm and upward, **DMLOAD™** ensures durability and strength even in demanding environments. Notably, load bar thicknesses can be increased up to 11 mm, providing resilience for trafficable areas, including those subjected to light vehicles and rotating forklift wheels.

This heavy-duty solution is ideal for very high loads, making it particularly suitable for offshore marine applications where wave loading is substantial. The grating's engineered design ensures it can withstand the challenging conditions associated with such environments. The mesh centreline, typically configured as **DMMESH™** with dimensions of 38 x 38 mm, come with variable aperture sizes, often set at either 30 x 30 or 27 x 27 mm. **DMLOAD™** stands as a sturdy and resilient choice, offering reliability and strength for a wide range of tasks, particularly in applications demanding exceptional load-bearing capacity.



Our product line boasts a spectrum of grating options, each distinguished by unique colors, varied thicknesses, surfaces, and resins. Among our offerings, **DMLOAD™** grating panels are available in multiple sizes, with the popular dimension being 1220 x 3660 mm. These panels feature a mesh size of 38 x 38 mm but also can be manufactured with a different configuration.

Kindly seek detailed specifications for DMLOAD™ from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMLOAD™

DMGRATE™ offers a diverse selection of **DMLOAD™** FRP gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

DMLOAD			UDL - deflection [mm]			
Mesh Centreline	Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
50x25	50 HD	1400	0.9	2.1	2.6	4.3
		1500	1.1	2.8	3.4	5.6
		1600	1.5	3.7	4.4	7.3
		1700	1.9	4.7	5.6	9.3
38x38	50 HD	1300	1.1	2.5	3.0	5.1
		1400	1.4	3.4	4.1	6.8
		1500	1.8	4.5	5.4	9.0
		1600	2.3	5.8	7.0	11.6
38x38	60 HD	1500	1.0	2.6	3.1	5.2
		1600	1.4	3.4	4.0	6.7
		1700	1.7	4.3	5.1	8.6
		1800	2.2	5.4	6.5	10.8
38x38	70 HD	1700	1.0	2.6	3.1	5.2
		1800	1.3	3.2	3.9	6.5
		1900	1.6	4.0	4.8	8.1
		2000	2.0	4.9	5.9	9.9
100x50	100 HD	2200	1.3	3.3	3.9	6.6
		2300	1.6	3.9	4.7	7.8
		2400	1.9	4.6	5.6	9.3
		2500	2.2	5.5	6.5	10.9

Please be aware that all values presented in the table are in mm for deflection and are indicative in nature.

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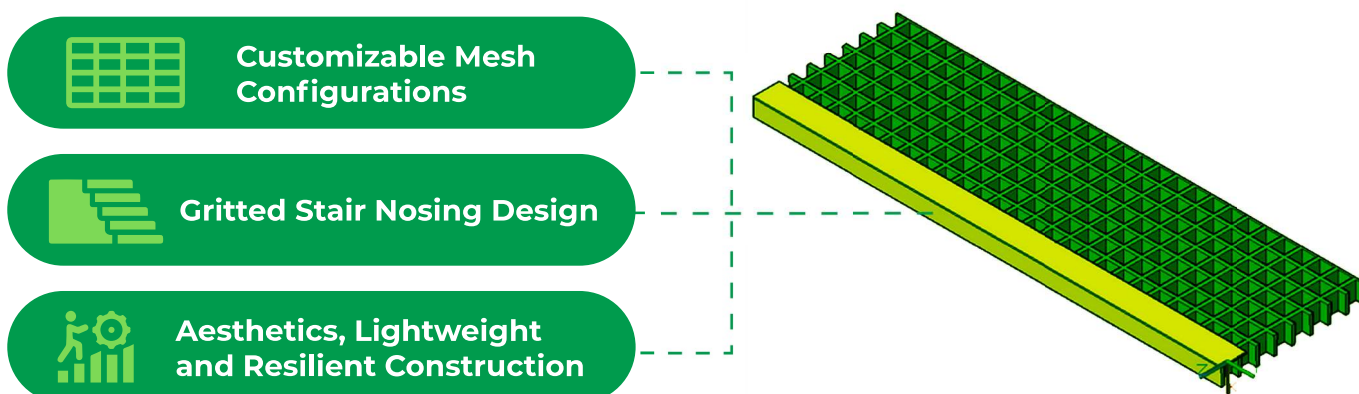
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DMTREAD™

DMGRATE™ features **DMTREAD™**, another distinguished product category that offers durable treads constructed using FRP gratings. These treads can be customized with various mesh configurations, including **DMMESH™**, **DMMINI™**, **DMMICRO™**, and **DMLOAD™**, providing flexibility to suit specific requirements and in accordance with AS 1657. Featuring an FRP gritted stair nosing resin bonded on the top edge surface, **DMTREAD™** is an ideal solution for both commercial and industrial staircase applications.

The unique design incorporates a rebated and bonded nosing to the mesh, ensuring a trip-free finish. The nosing can be color matched with the tread or coated in contrasting colors such as yellow, light grey, green, or black, providing aesthetic flexibility. **DMTREAD™** stands out with its resistance to harsh corrosion, offering longevity even in challenging environments. With excellent anti-slip properties, these treads prioritize safety, making them suitable for a variety of settings. Moreover, being lightweight and easy to install, **DMTREAD™** can be seamlessly integrated into existing steel stringers or FRP staircases, making it a practical and versatile choice for staircase applications.



Our product line boasts a spectrum of stair tread options, each distinguished by unique colors, varied thicknesses, surfaces, and resins. Among our offerings, **DMTREAD™** FRP stair tread gratings are available in multiple sizes, with the popular dimension being 900 x 310 mm. These panels feature a mesh size of 38 x 38 mm but also can be manufactured with a different configuration.

Kindly seek detailed specifications for DMTREAD™ from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMTREAD™

			UDL 2.2kN/m - deflection [mm]		PL 1.5kN - deflection [mm]	
DMTREAD			Tread Depth		Tread Depth	
Mesh Centreline	Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
38x38	38	700	--	--	--	--
		800	--	--	--	--
		900	--	--	--	--
		1000	--	--	--	--
19x19	38	1300	--	--	--	--
		1400	--	--	--	--
		1500	--	--	--	--
		1600	--	--	--	--
13x13	38	1500	--	--	--	--
		1600	--	--	--	--
		1700	--	--	--	--
		1800	--	--	--	--
25x25	50	1700	--	--	--	--
		1800	--	--	--	--
		1900	--	--	--	--
		2000	--	--	--	--

DMGRATE™ offers a diverse selection of DMTREAD™ FRP stair tread gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

STEP 1
Determine
your load



STEP 2
Define
your span



STEP 3
Check your
deflection



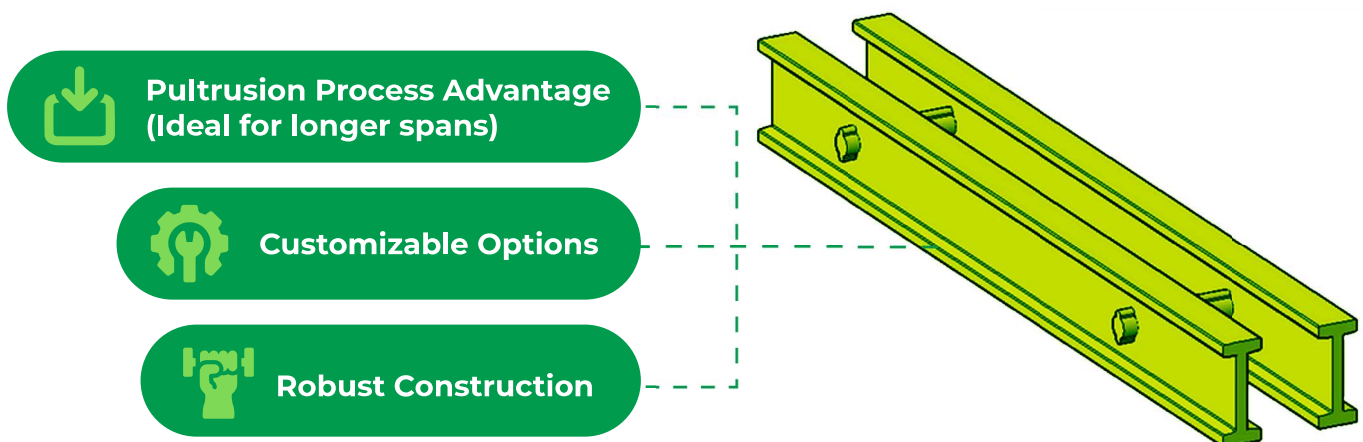
Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

DM Composites assumes no liability for any interpretation of the table by our clients that deviates from our recommendations.

DMTRUDE™

DMGRATE™ is pleased to introduce DMTRUDE™, a distinctive product category within the DMGRATE™ lineup, which stands out for its unique manufacturing process. Unlike the molded gratings seen earlier in this product guide, DMTRUDE™ is crafted using a pultrusion process, earning the designation of pultruded gratings. The key differentiator lies in the higher content of fiberglass reinforcement in pultruded gratings, resulting in increased mechanical strength and the ability to accommodate longer spans, thereby minimizing deflection in one direction.

What sets DMTRUDE™ apart is its adaptability and customization options. This type of grating can be tailored with choices in resin type, color, and gritted surface, providing a versatile solution for a variety of applications. The pultruded construction offers a robust alternative to molded gratings, delivering enhanced design flexibility, especially in scenarios with high Uniformly Distributed Loads (UDLs). DMTRUDE™ is composed of standard FRP pultruded profiles, securely connected laterally using FRP rods that are resin bonded at equal intervals across the profiles, ensuring a strong and durable structure.



Our product line boasts a spectrum of pultruded grating options, each distinguished by unique colors, varied thicknesses, surfaces, and resins. Among our offerings, DMTRUDE™ FRP gratings are available in multiple sizes, with the popular dimension being 1200 x 5800 mm. These panels can be manufactured with a different configuration.

Kindly seek detailed specifications for DMTRUDE™ from our team of experts, covering aspects such as sheet sizes, varying thickness options, resin selections, colour choices, and comprehensive information regarding the gritted surface.

DMTRUDE™

			UDL 2.2kN/m - deflection [mm]		PL 1.5kN - deflection [mm]	
DMTRUDE			Tread Depth		Tread Depth	
Mesh Centreline	Thickness	Span [mm]	1 kPa	2.5 kPa	3 kPa	5 kPa
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DMGRATE™ offers a diverse selection of DMTRUDE™ FRP pultruded gratings meticulously crafted to meet varied loading requirements. Our team of FRP experts is committed to furnishing detailed information on load capacity and span for each application.

We've included general UDL (Uniformly Distributed Load) details suitable for the majority of FRP grating applications. For PL (Point Load Values), feel free to consult our team of experts for tailored guidance.

To ensure optimal use of our span table, it's essential to follow our recommended steps:

STEP 1

Determine your load



STEP 2

Define your span



STEP 3

Check your deflection



Our grating span tables are a blend of live test data and engineering computations derived from our highly experienced FRP engineers. Nevertheless, it's crucial to understand that these span tables serve an informative or educational purpose only and are not a substitute for the application of engineering principles when deducing values.

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MANUFACTURING

The Open Moulding manufacturing process employed by DM Composites™ in crafting our **DMGRATE™** molded gratings is a technique that underscores efficiency and versatility. Unlike closed molding processes, open molding involves the application of resin to the fiberglass reinforcement in an open atmosphere.

In this process, the fiberglass rovings or mats are placed in an open mold, and a liquid resin is then applied to impregnate the fibers. The resin cures to form a solid composite material, resulting in the desired grating mesh shape. This method offers several advantages, including ease of application, cost-effectiveness, and the ability to produce large quantities of panels.

Our FRP molded gratings benefit from the open molding process by achieving a high level of consistency, ensuring uniformity in both quality and structural integrity. It's important to note that being a manual and/or semi-automated process, the gratings may exhibit subtle manufacturing tolerances, underscoring the unique blend of human artistry and precision in their production.

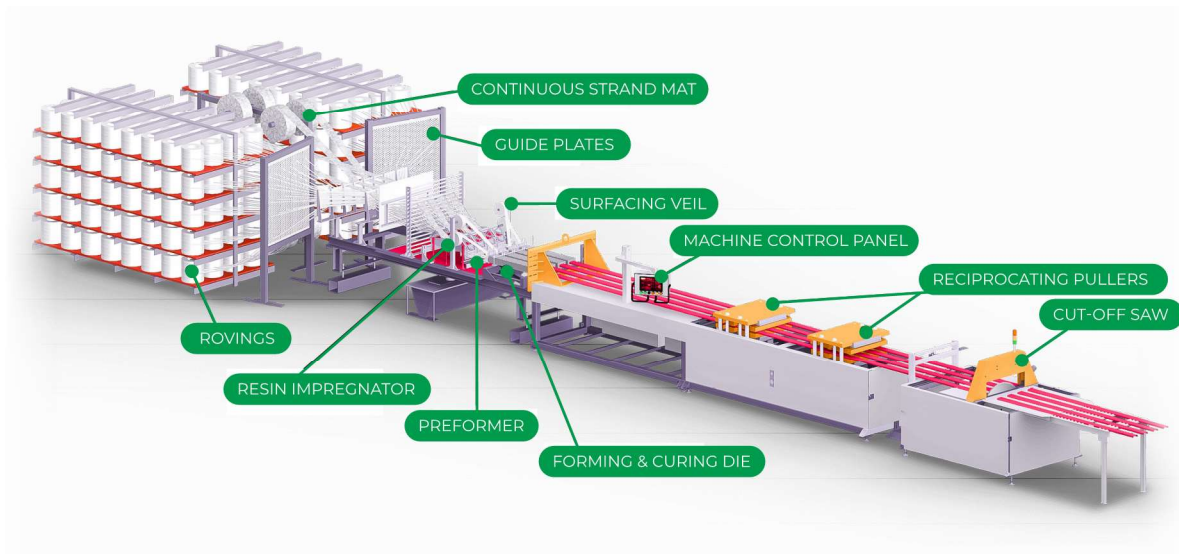


This manufacturing approach also allows for customization, enabling us to meet specific design requirements and provide tailored solutions for a wide range of applications. Overall, the open moulding process contributes to the durability, versatility, and cost-efficiency of our FRP molded gratings.



We guarantee compliance with key FRP manufacturing standards, encompassing ASTM, AS, ISO, EN, and various others, for all our grating and flooring products.

Our **DMGRATE™** FRP pultruded gratings at DM Composites™ are meticulously crafted through the pultrusion manufacturing process, a method that involves pulling reinforcing fibers through a resin bath and into a shaping die. This continuous process results in high-strength, durable grating profiles with consistent and precise dimensions. Pultruded gratings boast enhanced mechanical properties, making them ideal for applications requiring increased strength and stability. This manufacturing technique ensures a uniform and resilient product that meets stringent quality and dimensional standards.



Pultrusion refers to a uninterrupted manufacturing process in which continuous lengths of fiberglass reinforced polymers with a constant cross-section are produced. Pultrusion is a combination of two terms, 'pull' and 'extrusion.' The procedure involves pulling the raw materials, as opposed to extrusion, which works through pushing.



Hand lay-up is a manual process that can also be widely used in the production of Fiber Reinforced Plastic (FRP) components like FRP plates at DM Composites™. It involves manually layering reinforcing fibers, typically fiberglass, within a prepared mold, and applying resin to create a composite structure. The process is flexible, allowing for the production of components with varied shapes, but is labor-intensive and can result in inconsistencies due to operator skill variations. Hand lay-up is cost-effective for small-scale or custom manufacturing, but its longer cycle times, potential for human error, and limitations in achieving high mechanical properties make it less suitable for large-scale production with stringent quality requirements compared to more automated processes.



In the case of **DMTOP™** and **DMSEAL™** FRP Gratings, hand-laid plates play a crucial role in enhancing the structural and functional characteristics of the gratings. For **DMTOP™**, hand-laid plates are laminated on top of the grating, creating a solid top surface, while for **DMSEAL™**, the plates are laminated both on top and at the bottom of the grating. This comprehensive lamination process serves to seal the grating completely, providing both solid top and bottom surfaces. These tailored applications highlight the versatility of the hand lay-up process in achieving specific design requirements, ensuring the durability, and functionality of FRP gratings in various industrial applications.

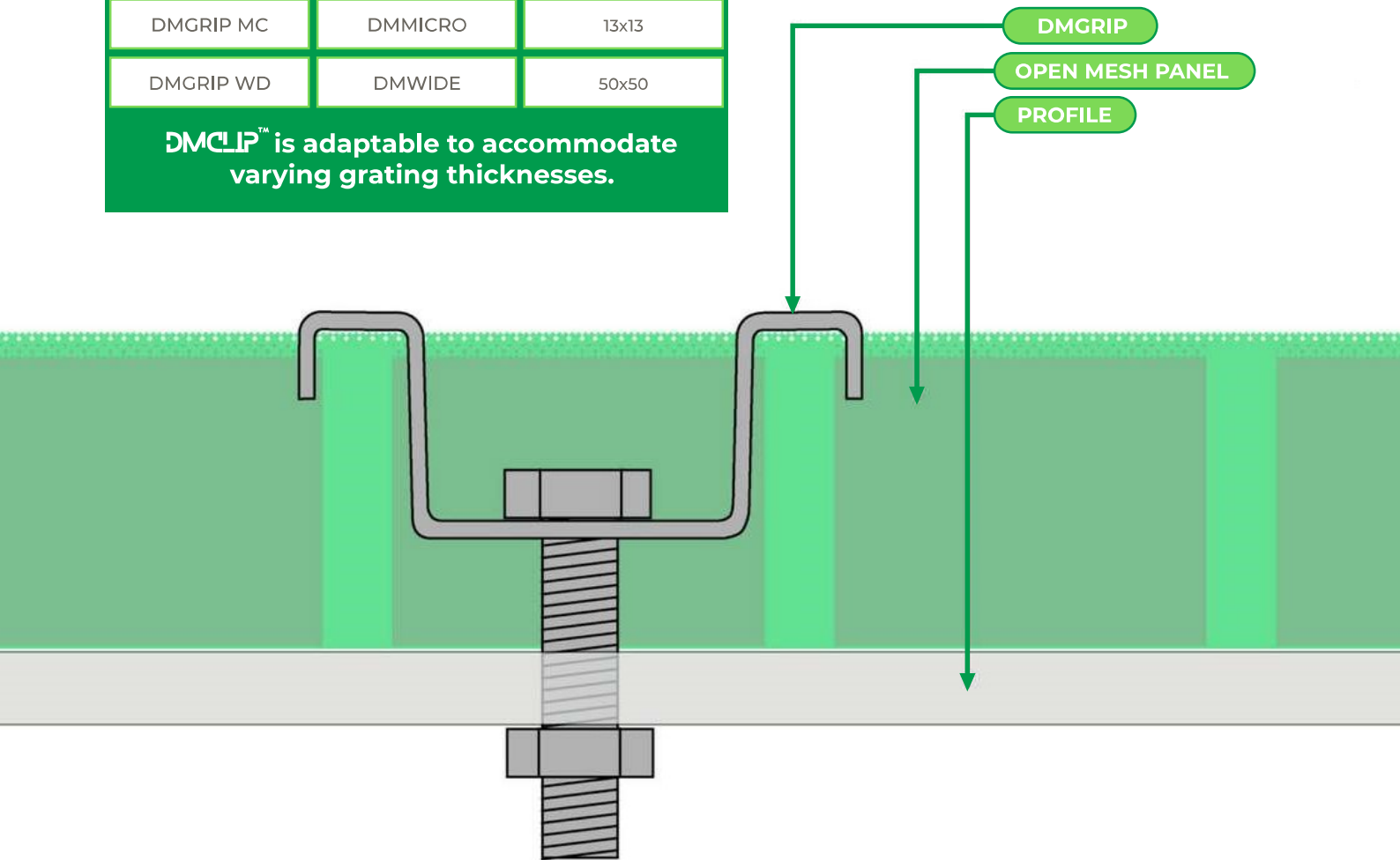


ACCESSORIES

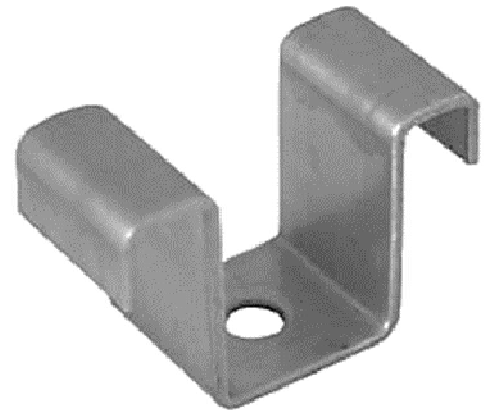
FASTENER	SUITABILITY	MESH CENTRELINE
DMGRIP MS	DMMESH	38x38
DMGRIP MN	DMMINI	19x19
DMGRIP MC	DMMICRO	13x13
DMGRIP WD	DMWIDE	50x50

DMCLIP™ is adaptable to accommodate varying grating thicknesses.

DMGRIP™



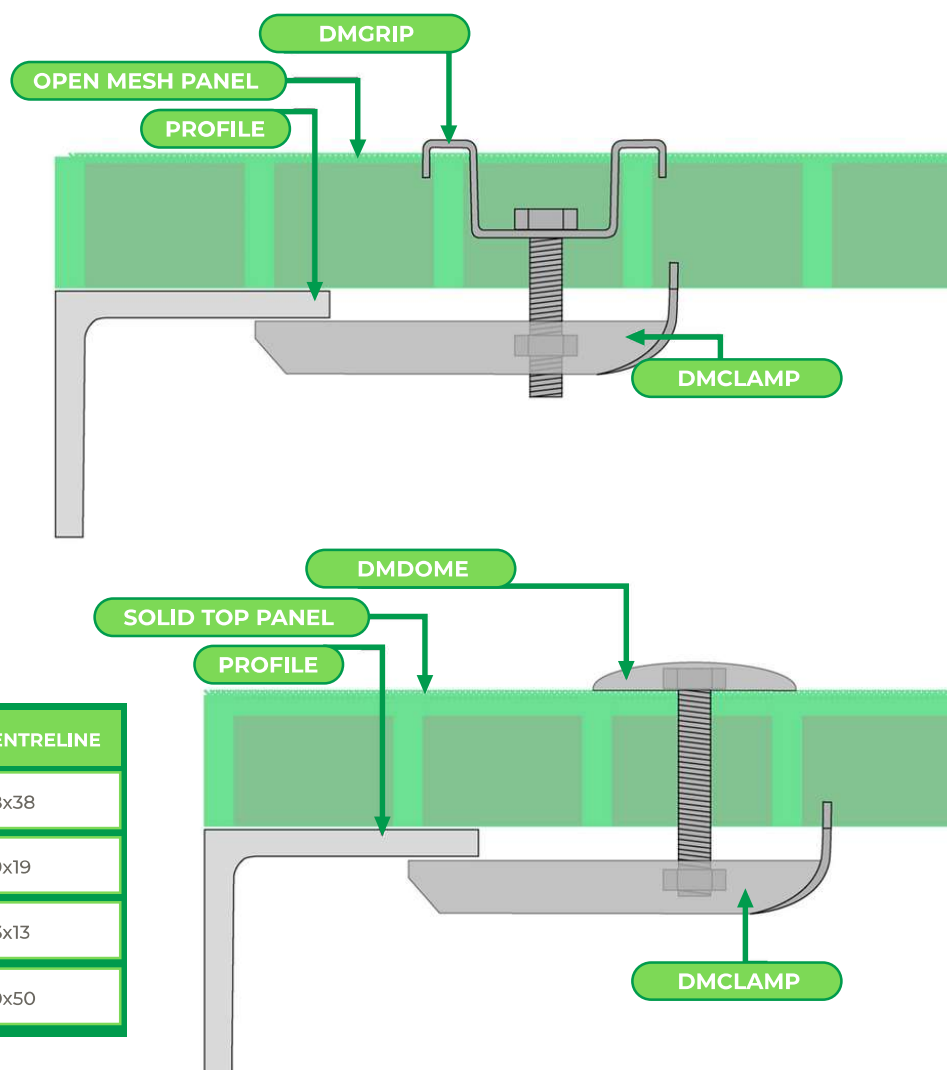
Our stainless steel **DMCLAMP™** provides a secure solution for affixing open and solid top mesh panels to profiles that cannot be drilled into directly. Employ **DMCLAMP™** in conjunction with a **DMGRIP™** or **DMDOME™**. The centrally located channel enables you to fine-tune the positioning of your panels, ensuring a flush fit. **DMCLAMP™** is suitable for DM MESH, DMMINI, as well as **DMTOP™** and **DMSEAL™** panels. The notched corners facilitate the insertion of the **DMCLAMP™** partially into the underside of the mesh, maintaining a parallel alignment with the profile.



DMCLAMP™

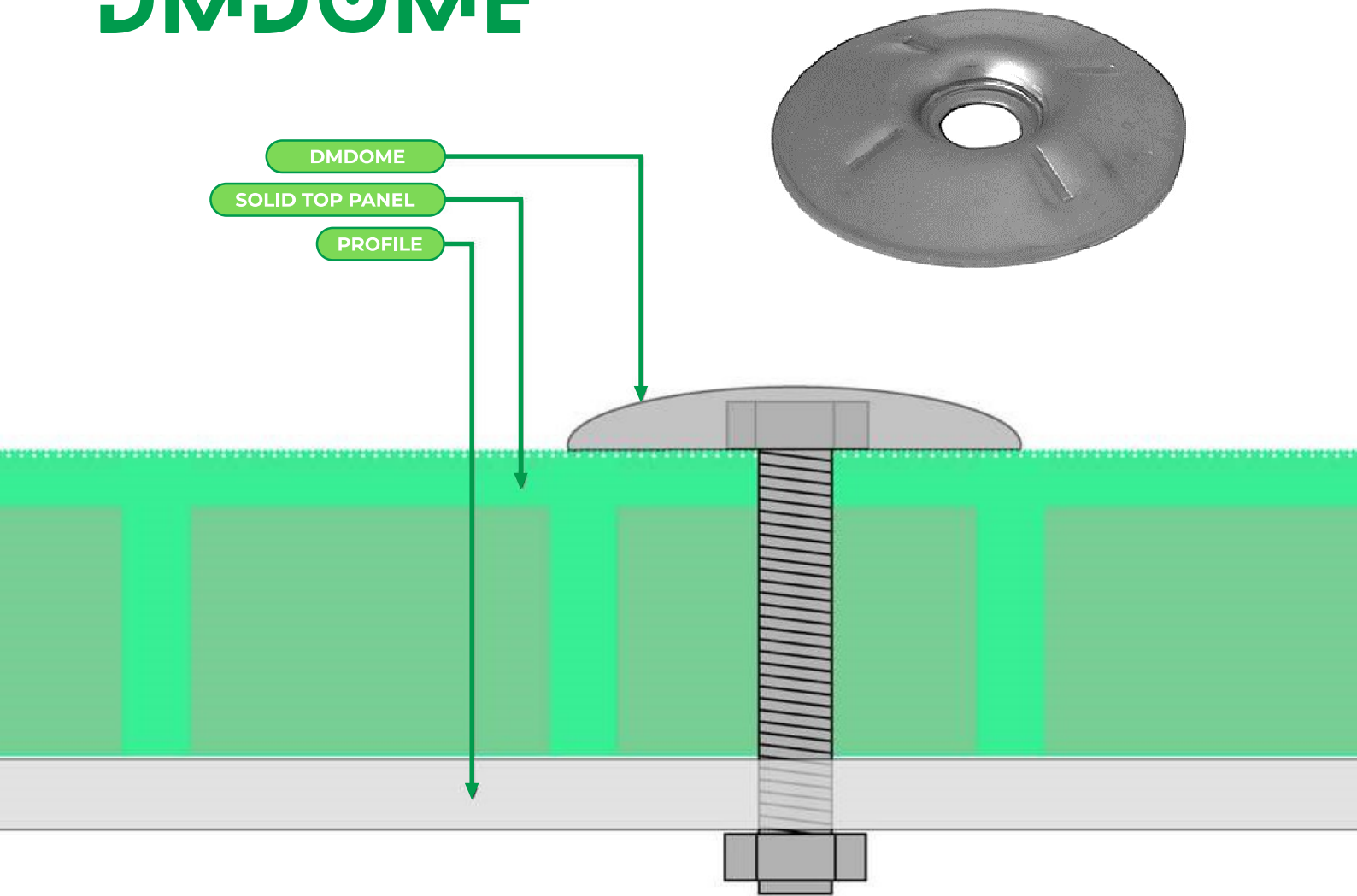


FASTENER	SUITABILITY	MESH CENTRELINE
DMCLAMP MS	DMMESH	38x38
DMCLAMP MN	DMMINI	19x19
DMCLAMP MC	DMMICRO	13x13
DMCLAMP WD	DMWIDE	50x50



Our stainless steel **DMCLAMP™** provides a secure solution for affixing open and solid top mesh panels to profiles that cannot be drilled into directly. Employ **DMCLAMP™** in conjunction with a **DMGRIP™** or **DMDOME™**. The centrally located channel enables you to fine-tune the positioning of your panels, ensuring a flush fit. **DMCLAMP™** is suitable for **DMMESH™**, **DMMINI™**, as well as **DMTOP™** and **DMSEAL™** panels. The notched corners facilitate the insertion of the **DMCLAMP™** partially into the underside of the mesh, maintaining a parallel alignment with the profile.

DMDOMETM

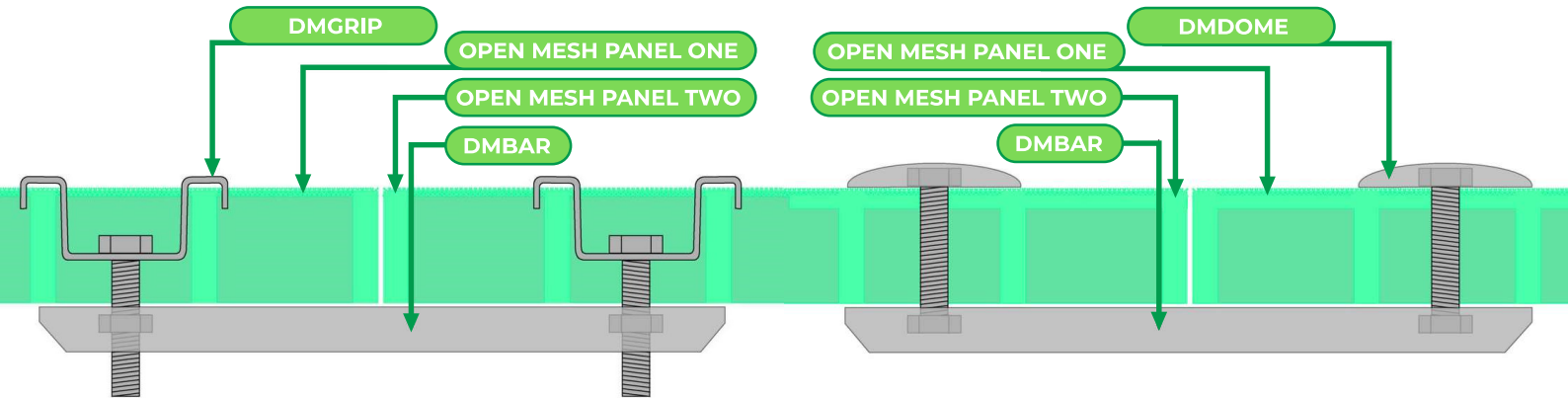


FASTENER	SUITABILITY	MESH CENTRELINE
DMDOME	DMMESH, DMMINI, DMMICRO, DMTOP, DMSEAL	38x38, 19x19, 13x13
DMDOME WD	DMWIDE	50x50

Our FRP **DMDOMETM** is designed for application on Open Mesh, **DMTOPTM**, and **DMSEALTM** Grating panels, Flat Plate, as well as FRP Profiles. Crafted from stainless steel grade 316/A4, these washers are versatile, suitable for use on any part of a fabrication, including the structural components. Available in various sizes, they provide a smooth, trip-free, and snag-free solution for securely fastening FRP Panels and Profiles. Additionally, we offer coated versions tailored to specific environmental requirements in certain settings—please reach out our team of experts for more details.

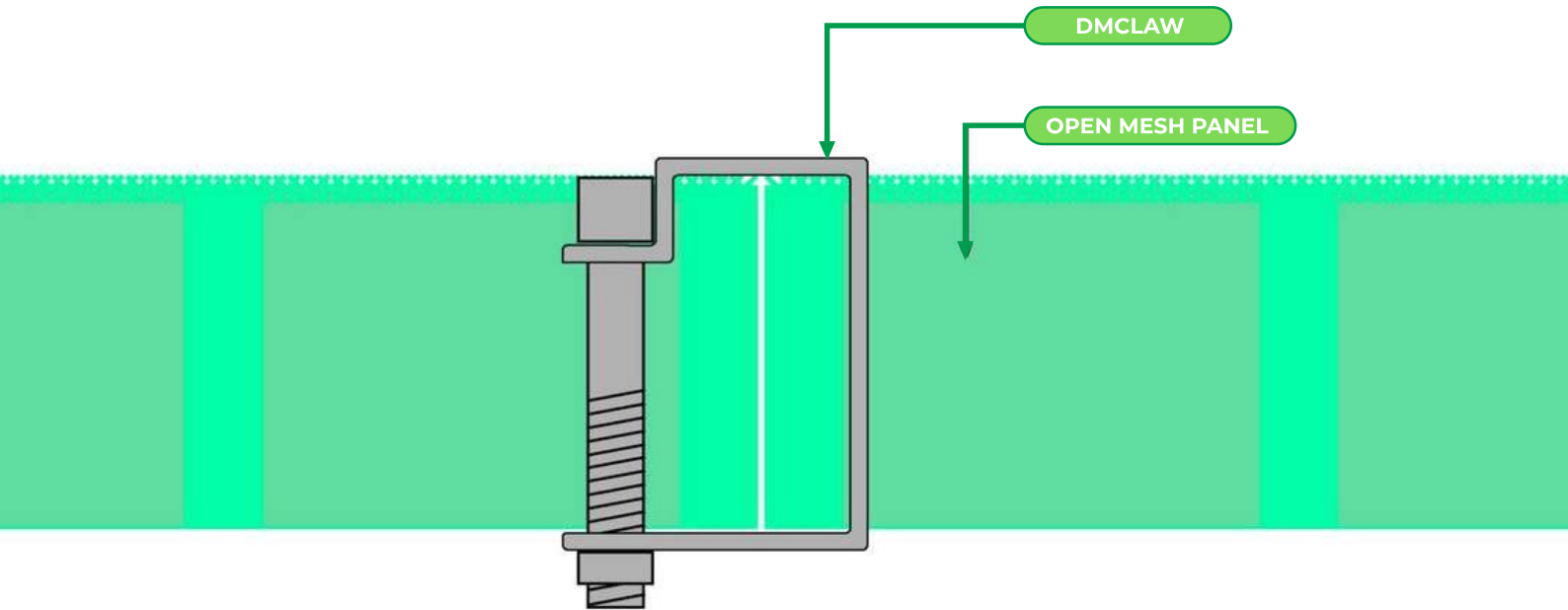
DMBAR™

FASTENER	SUITABILITY	MESH CENTRELINE
DMBAR	DMMESH	38x38
DMBAR MN	DMMINI	19x19
DMBAR MC	DMMICRO	13x13



DMBAR™, commonly known as reinforcement bar, facilitates the seamless joining of FRP grating panels, minimizing deflection between them. This solution ensures a polished surface on extensive platforms or floors, particularly in areas where panels must connect amid support profiles. To securely fasten, employ DMCLIP™ for open mesh gratings and DMDOME™ for solid top panels — both standard and mini-mesh versions are readily available. In instances where flexing is improbable, such as on smaller spans, DMCLAW™ can be chosen to effectively bind the panels together.

DMCLAW™



FASTENER	SUITABILITY	MESH CENTRELINE
DMCLAW	DMMESH, DMWIDE	38x38, 50x50
DMCLAW MN	DMMINI	19x19

DMCLAW™ is adaptable to accommodate varying grating thicknesses.



Use our stainless steel **DMCLAW™** to securely connect two panels of open mesh grating side by side. **DMCLAW™** is made from stainless steel grade 316/A4 and is designed to effectively secure two Standard **DMMESH™** Panels. They come with a hex bolt, and you can fasten them using an allen key. **DMCLAW™** is stocked in a range of sizes, catering to both Standard and Mini Mesh GRP Open Mesh Grating. This solution provides a smooth and trip-free method for joining FRP Panels. Additionally, we offer coated versions tailored to specific settings. Feel free to reach out to our team of experts for more details.

DMRAISE™

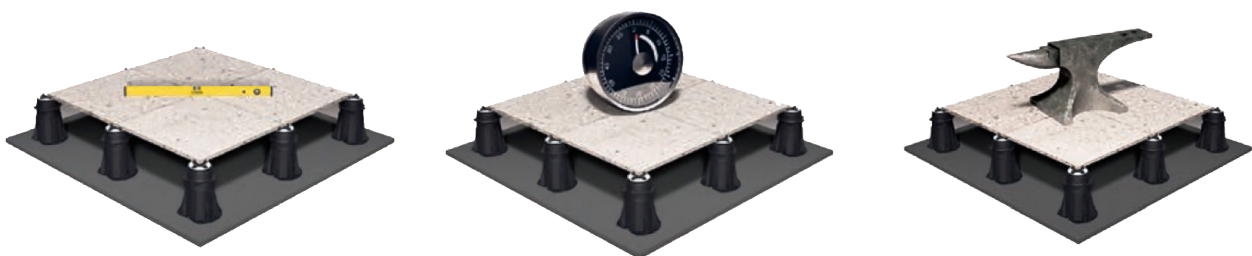


Unlock a world of flooring excellence with **DMRAISE™** adjustable pedestals, offering a multitude of solutions to effortlessly address minor imperfections and significant slopes on any surface. Our innovative pedestals guarantee not only stability but also the creation of flawlessly level floors.

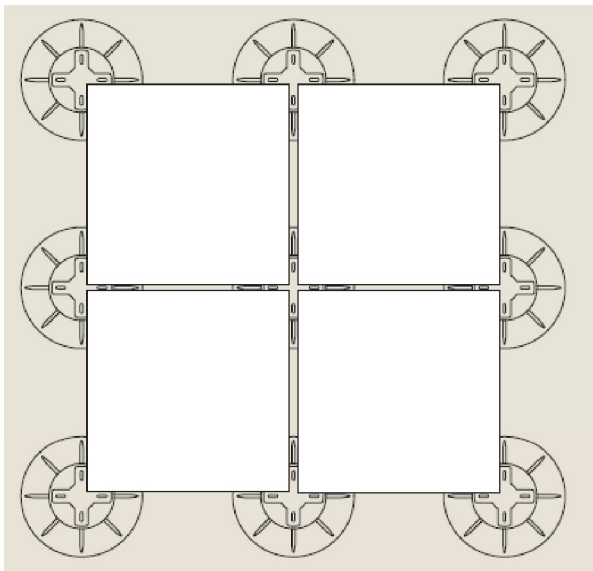
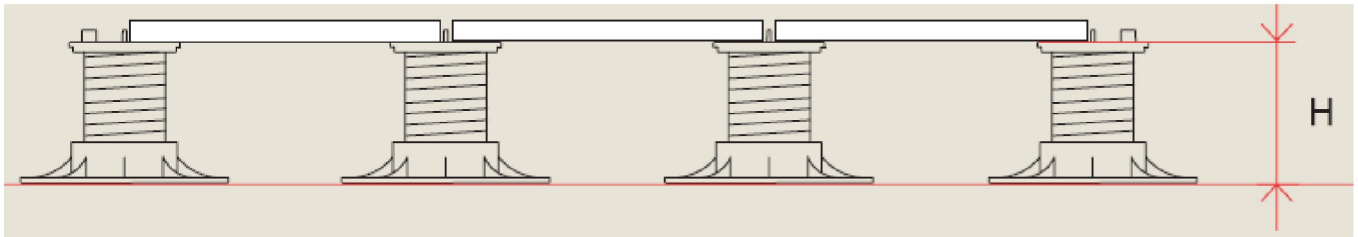
Simply lay the FRP flooring atop the waterproofing membrane for a hassle-free installation process. Achieving a consistently level floor is a breeze with our cutting-edge system, effortlessly compensating for slight irregularities and slopes on the laying surface. Installing on a waterproof membrane adds a layer of convenience, as there are no mechanical fixed parts between the FRP flooring and the supports, allowing for easy inspection and maintenance.

Speed meets efficiency with **DMRAISE™**. Experience the substantial benefits of a rapid installation pace, revolutionizing site management and resulting in significant economic savings. During renovations, the shortened timeframe not only streamlines the process but also minimizes inconvenience for residents, making it a win-win solution.

The foundation of **DMRAISE™** lies in its solid structural support, meticulously formulated through a wealth of expertise. Reinforced by an unbroken thread connecting the base to the screw, our product ensures not only strength and security but also longevity. Choose **DMRAISE™** for a flooring solution that goes beyond expectations, combining innovation, ease of installation, and durability in one exceptional package.



DMRAISE™



DMRAISE™ pedestals offer the flexibility of incorporating one or multiple extensions, allowing you to easily achieve your desired heights with precision and convenience.



26 - 38 mm



38 - 60 mm



59 - 100 mm



93 - 162 mm



158 - 280 mm



275 - 385 mm



381 - 528 mm



201 - 305 mm



308 - 449 mm



311 - 422 mm



418 - 565 mm

INSTALLATION

BACKGROUND

DM Composites™ offers you the flexibility to choose from material supply and manufacture only or opt for comprehensive installation services. Regardless of your preference, we assure you of outstanding customer service and dedicated on-site support throughout the entirety of your project.

Our Design team boasts an impressive track record, having successfully designed and constructed multiple FRP bespoke engineered solutions in Australia. With expertise that extends to both ground-up construction and retrofitting existing substructures, we are well-equipped to tackle diverse FRP structure projects.

When it comes to installation, our highly reputable team has earned accolades for their work, showcasing extensive experience across various design and construction projects, including those in rural and remote areas.

At DM Composites™, we are dedicated to delivering professional, high-quality services in commercial construction. Our commitment to integrity and professionalism shines through in every project, and our national reputation is built on a strong work ethic, quality outcomes, innovation, and a sustainable approach. Choose DM Composites™ for a partnership that ensures excellence from start to finish.

TIPS AND TRICKS

When it comes to cutting DMGRATE™ FRP products, prioritize your safety by wearing essential protective gear. Equip yourself with safety glasses, a dust mask, gloves, and a shop coat with sleeves to ward off skin irritation. Work in a well-ventilated area to steer clear of inhaling dust particles.

For precise cutting, employ a heavy-duty rotary saw with a masonry, carbide, or diamond-coated blade. Ensure a stable panel by providing firm support during cutting, and flipping the panel bottom-side-up will yield a smooth surface for the saw, reducing chipping. Take blade width into account when measuring for accurate results.

Post-cutting, safeguard all cut surfaces from corrosion by coating them with resin. Opt for a two-part resin system or a resin comparable to the one used in manufacturing the fiberglass grating to maintain corrosion resistance.

During installation, adhere to safety guidelines by providing a minimum of 40mm bearing support at all grating support points. Use hold down clips at a rate of 4 per m² for secure fastening.

Choose from DM Composites™ diverse range of clips for joining grating panels together and fastening them to the support system. Safety and precision are our top priorities at every step of the process.

Reach out to DM Composites™ for comprehensive installation documentation, guidance, and support. Visit www.dmcomposites.com.au to connect with us.

DMGRATE™

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 Australia

  Connect with us