

DRAGONFLY 300 Plate OBDURO TDP/TSP Coated

DF3-OB

Product Code Guide	Plate Type		2 nd Plate Type	Size	Thickness	Hole Size	Coating
	DF	3S	D	15	2	50	TSP

Physical Properties

Product Code	Dragonfly (Butterfly)	Plate Size	Weight
	mm	mm	kg
DF3SD15250TSP	300 x 280	150 x 150 x 10 Domed	3

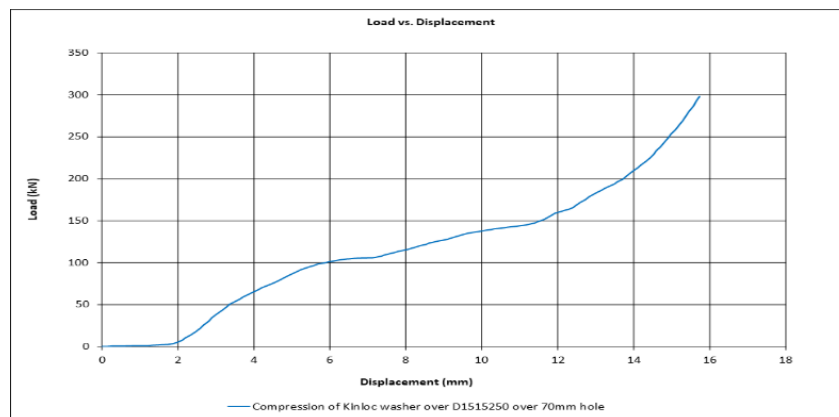
Key Features

DSI Underground has developed a protective coating system that affords additional protection to products used in harsh environment areas. This process uses a combination of application of a zinc substrate with a final top coating of Thermoplastic Coating. The Thermoplastic coating has been selected based on the considerations of strength, flexibility and resistance in areas with a low pH.



- The DF3SD15250TSP is designed specifically for the Kinloc product range.
- Designed with a profile that gives greater strength by strategically pressing the vees, placing the perimeter of the Dragonfly Plate in tension.
- Dragonfly 300 provides enhanced plate strength with improved mesh containment.
- The Dragonfly 300 has a larger bearing area when heavily loaded compared to traditional domed square plates.
- 300kN minimum compression load based on lab testing, in service conditions may vary performance.
- Allows faster installation by eliminating the handling of two separate components.
- Is suitable for direct placement onto the rock surface or used against welded mesh.
- Corrosion protection may be provided by either Hot Dip Galvanising, Thermal Diffusing or Thermal Metal Spray coating together with X60 Thermoplastic coating.

Product Performance



Typical Coating Properties

		Measure	Unit	Standard and Test Conditions	
General properties	Maximum particle size	150	µm	ISO 8130-1	
	Bulk density	0.33	g.cm ³	ASTM D1895 (Method A)	
	Specific gravity	0.94	g.cm ³	ISO 1183	
	Melt flow index	25	g/10min	ISO 1133 (190°C, 2.16kg)	
	Gloss 60°	60-80	%	ISO 2813	
Thermal properties	Melting temperature	90	°C	ISO 3146	
	Vicat softening temperature	63	°C	ISO 306	
	Maximum continuous temperature	75	°C	Test Axalta	
	Thermal conductivity	0.25	W.m ⁻¹ , K ⁻¹	ASTM E 1530	
	Flammability rating	V-0		UL 94	
Mechanical Properties	Abrasion resistance (Taber)	12	mg (weight loss)	ISO 9352 (CS-10, 1,000g)	
	Adhesion	>8 (100% Y)	[Mpa]	ISO 4624 (20mm dolly)	
	Hardness	60	Shore D	ASTM D2240	
	Impact resistance	>18.2	J	ASTM D2794 (1.5mm steel; ball diameter: 15.9 mm)	
	Tensile strain at break	460	%	ISO 527	
	Tensile strength	23	Mpa	ISO 527	
Electrical properties	Dielectric strength	48	kV.mm ⁻¹	ASTM D149	
	Volume resistivity	2.10 ¹⁶	Ω.cm	ASTM D257	
Properties under accelerated aging	Salt spray resistance	2,000[h]	0	mm (steel substrate corrosion)	ISO 9227 (NSS, with scribe)
		3,500[h]	<1		
	UV stability ¹⁾	2,000 h	No damage	ISO 4892-3 ²⁾	
	Chemical resistance ³⁾	20°C	60°C		
		Acids	Excellent	Excellent	
		Alkalis	Excellent	Excellent	ISO 2812 and ISO 4628
		Fuels	Good	Poor	
Solvents	Good	Not recommended			

1) Colour and gloss deviation is colour dependent and available upon request.

2) UVB-313 lamp, cycles: 8h at 60°C (black panel) and 0.71W/m²/mm (at 310nm), then 4h at 50°C with condensation.

3) A specific chemical resistance test is recommended before any industrial application.

- Hot Dip Galvanised typical thickness 70µm.
- Thermal Diffusion typical thickness 55µm.
- Thermal Metal Spray typical thickness 75µm.
- Thermoplastic coating typical thickness 20µm – Obduro X60 or equivalent.

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Colours

- Silver-Gray or Yellow.




Product Certifications

- ISO 12944 part 6, corrosivity C5-M High and Im3 High.
- ISO 20340 (offshore environments), category C5-M.

Product Accessories Examples

- DSI Underground manufactures a comprehensive range of Bolts specifically designed for this range of Plates.

Typically, Products used are:

	Products		
Product Group	Kinloc	Thread Bar	Bolts
Product Imagery			
Product Code Prefix	FBMD	TB	PCS5

Packaging

- Dragonfly Plates are packed in pallets of 300.

Notes

- DSI Underground is Quality Assured to ISO 9001:2015.

Phone APP

- Want to know more; our full product range, knowledge centre, and other details are available via the App; available on iOS and Android devices by searching “DSI Underground”.



iOS



Android