

TECHNICAL DATA SHEET

OPGW Series – 400H (0.50)

Thixotropic Filling Compound for OPGW Cables



UNIGEL OPGW-400H contains an efficient hydrogen scavenger to absorb any hydrogen that may arise from the laser welding process or be generated throughout the life span of the cable. It is flexible down to -50°C , non-draining at 80°C and thixotropic for controlled filling at ambient temperature. OPGW-400H exhibits zero oil separation and provides excellent resistance to corrosion and oxidation for long-term stability.

Properties	Typical Value	Test Method
Appearance	Brown/Black	Visual
Density, 25°C (g/ml)	0.86	ASTM D1475
Flash Point ($^{\circ}\text{C}$)	≥ 220	ASTM D92
Drop Point ($^{\circ}\text{C}$)	≥ 170	ASTM D 566
Cone Penetration, 25°C (dmm)	≥ 385	ASTM D 217 (M)
Cone Penetration, -40°C (dmm)	≥ 190	ASTM D 217 (M)
Viscosity, 50 s^{-1} , 25°C (Pa.s)	6.4	UNIGEL - CR Ramp 0-100 s^{-1}
Oil Separation, 100°C , 24 hours (Wt %)	Zero	FTM 791-321 (M)
Volatile Loss, 100°C , 24 hours (%)	≤ 1.0	FTM 791-321 (M)
Oxidation OIT, 190°C (min)	≥ 30	ASTM D3895
Acid Value (mg KOH/g)	≤ 0.1	ASTM D974-85
Water Content (ppm)	≤ 100	ASTM D4019-88
Hydrogen Absorption, 24hrs (cm^3/g)	≥ 0.175	UNIGEL
Water Resistance @ 20°C / 7 days	Pass	SH/T0453
Fungal Growth	Nil	ASTM G21

Packaging Type	Net Weight (Kg)	Supply Options
210 Litre Drum	175kg	Single Journey
1000 Litre Unibag	750kg	Single Journey

Compatibility

UNIGEL OPGW-400H is compatible with most OPGW cable materials. Tests on typical materials such as aluminium, stainless steel tape and optical fibre show no reaction but it is recommended that compatibility tests are made with all materials likely to come into contact with the gel.

Processing

UNIGEL OPGW-400H is suitable for cold filling with conventional pumping equipment.

The data presented herein is given in good faith and correct to the best of our knowledge at publication. Values quoted are typical and do not constitute a guarantee of performance and UNIGEL reserve the right to make alterations without notice. UNIGEL is a registered trademark of UNIGEL IP Ltd.

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