TECHNICAL DATA SHEET

Unisorb AS01

Thixotropic Filling Compound for OPGW and Subsea Cables

Unisorb contains an efficient hydrogen scavenger to absorb hydrogen that may arise from the cable manufacturing process or generated throughout the service life of a Subsea cable. It is flexible down to –50°C, non-draining at 80°C and thixotropic for controlled filling at ambient temperature. Unisorb exhibits zero oil separation and provides excellent resistance to corrosion and oxidation for long-term stability.

Properties	Typical Value	Test Method
Appearance	Translucent	Visual
Density, 20°C (g/ml)	0.86	ASTM D1475
Flash Point (°C)	≥ 220	ASTM D92
Drop Point (°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, 80°C, 24 hours (Wt %)	Zero	FTM 791-321 (M)
Volatile Loss, 80°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)	≥ 0.7	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	170kg/ 175kg	Single Journey
1000 Litre Unibag	750kg	Single Journey

Compatibility

Unisorb is compatible with most 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

Unisorb is suitable for cold filling with conventional pumping equipment.

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