

TECHNICAL DATA SHEET

Application

UNILITE Filling is a water-blocking semi-dry compound suitable as a filler in data, fiber and copper telecom cables.

Description

UNILITE Filling is a very low-density soft, non-sticky hydrophobic compound, flexible to -50°C , non-draining at 80°C and thixotropic for controlled filling at ambient temperature. UNILITE Filling is non-nutritive to fungus exhibits excellent electrical properties, low permittivity, low hydrogen generation, zero oil separation and provides excellent resistance to oxidation for long-term stability.

Properties	Typical Value	Test Method
Appearance	White	Visual
Density, 25°C (g/ml)	0.35	ASTM D1475
Flash point ($^{\circ}\text{C}$)	>200	ASTM D92
Drop point ($^{\circ}\text{C}$)	>200	ASTM D 566
Cone penetration, 25°C (dmm)	370 ± 20	ASTM D 217 (M)
Viscosity, 10 1/s, 25°C (Pa.s)	70 ± 5.0	UNIGEL - CR Ramp 0-12 1/s
Oil separation, 100°C 24 hours (Wt %)	Zero	FTM 791-321 (M)
Volatile Loss, 100°C , 24 hours (Wt %)	<1.0	FTM 791-321 (M)
Oxidation OIT, 190°C (min)	>30	ASTM D3895
Acid value (mg KOH/g)	<0.3	ASTMD974-85
Hydrogen generation, 80°C , 24hours ($\mu\text{l/g}$)	<0.02	UNIGEL
Water resistance, 20°C , 7days	Pass	SH/T0453
Fungal growth	Nil	BS 5980
Relative Permittivity, 1MHz, 25°C	≤ 1.60	ASTM D150
Volume Resistivity, 23°C (ohms.cm)	19×10^{14}	ASTM D257
Dissipation Factor, 1MHz	4.4×10^{-4}	ASTM D924

Compatibility

UNILITE Filling is compatible with most polymers, steel tapes and FRP's. Tests on typical polymers and other materials show minimal interaction But it is recommended that compatibility tests are made with all materials likely to come into contact with the gel.

Processing

UNILITE Filling is suitable for cold pumping and processing enabling cable filling without voids created by compound shrinkage. A line-synchronized gel metering system is available comprising of a discharge pump, filling head and a metering control unit for stable dosing.

Reference Number: 01120717

TDS-UK-Unilite-Filling-0.35

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