

TECHNICAL DATA SHEET

UNIGEL FR Series

Flame Retardant Filling and Flooding Compound



Thixotropic water blocking compound suitable as a multipurpose filling and flooding solution including most common designs of optical fiber cable. Unigel FR has a working temperature range from -40 to +80 deg C and exhibits excellent resistance to oxidation for long term stability. UNIGEL FR is a Low Smoke, Halogen Free, Flame Retardant, water-blocking compound for improving fire performance.

Properties	Typical Value	Test Method
Appearance	Cream-Beige	Visual
Density, 25°C (g/ml)	1.35	ASTM D1475
Flash point (°C)	≥250	ASTM D92
Drop point (°C)	≥200	ASTM D 566
Cone penetration, 25°C (dmm)	≥280	ASTM D 217 (M)
Viscosity, 50 s ⁻¹ , 25°C (Pa.s)	≥12.5	UNIGEL - CR Ramp 0-100 s ⁻¹
Oil separation, 80°C, 24 hours (Wt %)	≤1.0	FTM 791-321 (M)
Volatile Loss, 80°C, 24 hours (%)	≤1.0	FTM 791-321 (M)
Oxidation OIT, 190°C (min)	≥60	ASTM D3895
Smoke point test Ds (max) within 10 minutes	18	ISO5659-2
Burning Behaviour by oxygen index (35% O ₂)		BS EN ISO 4589
Burning period (s)	≤180	
Length burnt (mm)	≤80	
Toxicity (R value) CO	0.19	BS 6853 Annex B.1
CO ₂	0.03	
SO ₂	0.01	

Packaging Type	Net Weight (kg)	Supply Options
210 Litre Drum	270kg	Single Journey

Compatibility

UNIGEL FR is compatible with most cable grade polymers. Tests on typical acrylate coated optical fiber shows no reaction but it is recommended that compatibility tests are made with all materials likely to come into contact with UNIGEL FR

Processing

UNIGEL FR has been designed for pumping from ambient conditions

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UNIGEL (UK) Ltd.
Unit 7, Park View, Alder Close
Eastbourne, East Sussex
BN23 6QE
United Kingdom

UNIGEL (USA) Inc.
1027 19th Street S.W
Hickory, NC 28602
United States of America

UG Technologies Sdn. Bhd.
Lot 21, Block A,
Lorong Keluli 1C, Seksyen 7
40000 Shah Alam,
Selangor, Malaysia