SOLTEX

Adding value to your formulations

TECHNICAL DATA SHEET

OPTIFILL 5300

Optifill 5300 is especially designed for use as a moisture blocking and buffering compound in loose-tube optical fibre telecommunication cables.

Optifill 5300 is a soft hydrophobic thixotropic gel based on hydrocarbons and inert fillers. It is recommended for use over the service temperature range -60°C to +80°C.

Application can be carried out at ambient temperatures using conventional cold pumping techniques.

Features and Benefits:

- Free from oil exudation at elevated temperatures
- Manufactured to precise rheological tolerances
- Remains soft at extreme low temperatures
- Particularly suitable for high speed loose-tube production

Physical Properties

Appearance	Visual	Pale Amber Translucent Gel
Density at 20°C/gcm³	ASTM D1475	0.85 typical
Flash Point of Base Oil (Open)/ °C	ASTM D92	230 Minimum
Cone Penetration	ASTM D217	See Fig.1
Viscosity at 20°C, 50s⁻¹/mPa.s	DIN 53019 (Haake VT 550)	9000 - 11000
Viscosity Profile at 20°C	DIN 53019 (Haake VT 550)	See Fig.2
Oil Separation, 24 hours at 80°C	FTM 791-B (321.2)	Nil
Volatility, 24 hours at 80°C	FTM 791-B (321.2)	1.30% Typical
Critical Yield Stress at 20°C/Pa	Controlled Stress Rheometer†	30 Typical
Migration, 14 days at 70°C	PBT Tube	0%
	MDPE Sheet	6%
	HDPE Sheet	5%

† Critical Yield Stress Method: Compound is held between a 4cm diameter 2° cone and plate, and is allowed to equilibrate at the test temperature for 20 minutes. Shear stress is applied at 1Pa, increasing at a rate of 1Pa per minute until a non-zero value of shear is detected. The shear stress being applied at this point is defined as the critical yield stress.

The above figures are typical of those obtained with normal production tolerance and do not constitute a specification.

SOLTEX, INC. 3707 FM 1960 West, Suite 560, Houston, TX 77068 | Phone: 281.587.0900 | Fax: 281.587.1998 www.soltexinc.com

Optifill 5300

Fig.1: Cone Penetration (ASTM D217) vs. Temperature (2 hours equilibration at each temperature point).

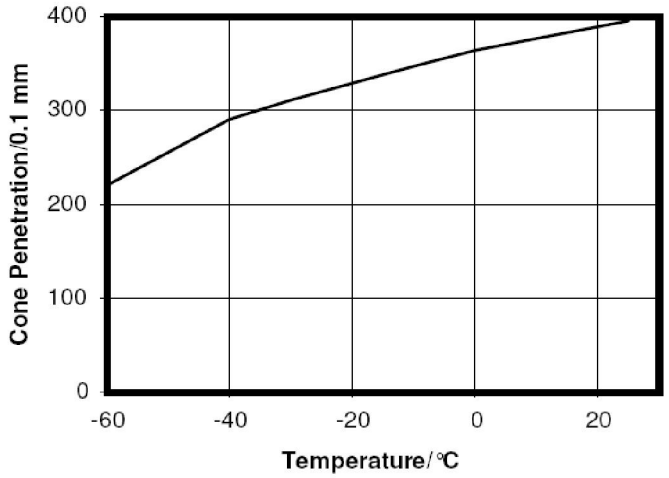
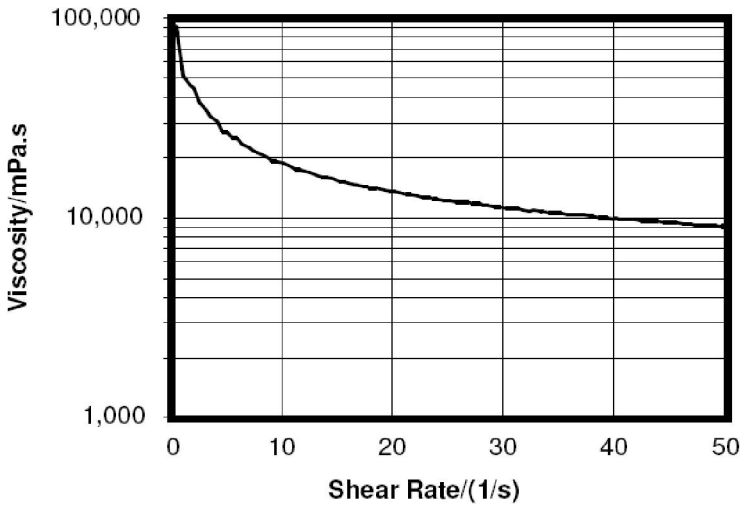


Fig.2: Typical Viscosity vs. Shear Rate at 20°C, measuring to DIN 53019 using a Haake VT 550 with a PK1 2° Cone and Plate



Date: 07/01/2010