

AlkateQ™ POLYETHYLENE

ENGINEERING THERMOPLASTIC

AlkateQ™ IS A REGISTERED TRADEMARK OF MARPLEX AUSTRALIA PTY. LTD.

ALKATEQ™ SHE2000

ALKATEQ™ SHE2000 is a linear low-density polyethylene (LLDPE) sheathing compound specifically designed for use in manufacture of both above and below ground cables. SHE2000 provides optimal processing performance for sheathing of cables and also provides an excellent surface finish to the extruded cable. SHE2000 is compounded with antioxidants and a high-quality, well-dispersed carbon black pigment to provide excellent outdoor weathering performance. ALKATEQ™ SHE2000 complies with the requirements of AS1049 for polyethylene sheath or jacket material.

	<u>CONDITIONS</u>	<u>UNITS</u>	<u>TYPICAL VALUES</u>	<u>TESTING METHODS</u>
<u>1. Mechanical Properties</u>				
Tensile Strength	Type IV specimen @ 50mm/min	MPa	>18	ASTM D638
Elongation at Break	Type IV specimen @ 50mm/min	%	>600	ASTM D638
<u>2. Thermal Properties</u>				
Oxidative-Induction Time (OIT)	200°C	minutes	>75	ASTM D3895
<u>3. Physical Properties</u>				
Melt Flow Rate	190°C, 2.16 kg	g/10 min	0.85	ASTM D1238
Density (base polymer)		g/cm ³	0.92	ASTM D1505
Carbon Black Content		%	2.6	AS 1049.2
Carbon Black Dispersion	Grading		2	ISO 18553
	Appearance		A2	ISO 18553
Absorption Coefficient	375 nm	ab/mm	440	ASTM D3349
ESCR (F0 = no crack)	50°C, 10% Igepal	hrs	>5000	IEC 60811-4-1/B

All test results were obtained using black material. The test data may be updated without further notice.

Issued: August 2016

Material Safety Data Sheet (MSDS): Code 8851

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TYPICAL PROCESSING CONDITIONS

ALKATEQ™ SHE2000

The following typical guidelines are offered as initial processing conditions for **ALKATEQ™ SHE2000**. In practice, processing parameters may need to be varied to give commercially acceptable performance in conjunction with optimum physical properties. For specific technical advice on part design or processing conditions, contact the Marplex Technical Service Department.

Recommended Melt Temperature

200 - 250°C

Comment(s):

- 1 Cleanliness of the dryer, machine hopper and machine screw/barrel/die head assembly are essential for processing ALKATEQ™ grades and producing contamination free sheathing.
- 2 ALKATEQ™ SHE2000 is not compatible during processing with other polymers.
- 3 It is suggested that the pre-drying, die head and material temperatures are manually confirmed using a hand held temperature measuring device.

Conversions:

1 MPa = 145 psi
= 10.2 kg/cm²
= 10 bar
°C = 5(F-32)/9
1 kN/cm² = 0.65 ton/in²