BLS POLYMERS LTD.
Excellence in Compounding

TECHNICAL DATA SHEET

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BLS 6666

LINEAR LOW DENSITY POLYETHYLENE BLACK COMPOUND

FOR SHEATHING & JACKETING OF POWER AND COMMUNICATION CABLES

DESCRIPTION

BLS Polymers introduces another sophisticated compound for sheathing & jacketing of Power & Telecommunication Cables Grade BLS 6666. This compound is made from specially selected LLDPE resin and carbon black that provides a balance of toughness, low shrinkage, high moisture barrier, high abrasion resistance, excellent weathering resistance, excellent chemical resistance, high ESCR, heat deformation resistance, low friction for easy pulling during installation, easy processability than conventional compounds. This compound meets the stringent quality requirements for Power and Communication Cables.

SPECIFICATIONS COMPLYING

BLS 6666 meets the specification requirements of -
ASTM D 1248 Type II Class C Category 4 Grade E4, E5, J3, BS 6234 Type 03C, IEC 60502-1 Type ST 3, ST 7, IEC 60840 type ST3, IEC 60840 Type ST 7.

TYPICAL PROPERTIES

PROPERTY	UNIT	TEST METHOD	TYPICAL VALUE
Density	gm / cc	ASTM D 1505	0.938 ± 0.002
Melt Flow Index (190^{0}C, Load of 2.16 Kg)	gm / 10 min	ASTM D 1238	0.6 ± 0.1
Tensile Strength	Kg / cm^2	ASTMD 638	240
Elongation at Break	%	ASTMD 638	850
Oven Ageing at 100^{0}C/ 10 days			
Elongation at Break	%	ASTM D 638	>300
Carbon Black Content	%	ASTMD 1603	2.4
Carbon Back Dispersion		BS 2782 Part 823 A&B	
(a) Rating			3
(b) Uniformity of appearance			Satisfactory Better than 'A' of figure 1
O.I.T.	Minutes	ASTM D 3895	>60
ESCR	Hours	ASTM D-1693 Condition 'B'	>500
Moisture Content	%	ASTM D-817	0.02
Brittleness Temperature	^{o}C	ASTM D 746	>-76
Dielectric Strength	kV/mm	ASTM D 149	>22

*The typical values reported in the above table have been obtained from measurements made on extruded samples or pressed plates.

PROCESSING METHOD

BLS 6666 For extrusion, standard PE-screws are recommended for excellent surface and high output, but screws designed for PVC can also be used with good result. We recommend that material should be pre-dried at 85±5^{0}C for 2-3 hours for best performance. Recommended processing temperature profile are as below, however, actual

temperature profile will depend upon the screw compression ratio, L/D ratio, type of extrusion sleeve and/or pressure.

Zone 1	Zone 2	Zone 3	Zone 4	Flange	Head	Die
160±10	170±10	180±10	190±10	200±10	200±10	200±10

To minimize shrink back, hot water (min 60^{0}C) in the first cooling trough is strongly recommended.

STORAGE & SELF LIFE

BLS 6666 must be stored in ambient temperature (not exceeding 50^{0}C) in a shaded area in sealed and intact bags to avoid exposure to sunlight and moisture. Long storing may affect the property of the compound and for this reason should be used within 12 months from the compounding date. It is better to measure the moisture and dry the material using dehumidifier dryer before use after long storage.

PACKAGING

BLS 6666 is available in 25 kg bags, 700 kg Jumbo bags in pallet, 25 kg bags collated in a wooden pallet and stretch wrapped, 700 kg Octabin.

SAFETY

The product is not classified as a hazardous preparation. Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system. Small amounts of fumes might be generated during processing of the product. Proper ventilation is therefore required.

Please refer to our MSDS for details on various aspects of safety, recovery, disposal and handling of the product.

We offer our Technical Services for further information and suggestion in using the product from the beginning and also for any need during the course of the product use.

RECYCLING

The product is suitable for recycling using various methods of shredding and cleaning in-house production waste should be kept clean to facilitate direct recycling.