

## TECHNICAL DATA SHEET

Jan. 25

### BLS PVC TI 1 4691

#### PVC COMPOUND FOR INSULATION

#### DESCRIPTION

**BLS PVC TI 1 4691** is a PVC Compound designed to be used for insulation application of energy/power cables & wires and is RoHS compliant. This compound meets the stringent quality requirements of general-purpose insulation.

#### STANDARD COMPLYING

**BLS PVC TI 1 4691** is recommended for general purpose insulation. It meets the requirements of raw material for manufacturing of cables as per Type TI 1 BS 7655, Type A IEC 60502 – 1 & DMV18HD603, BS EN 50525-2-31 & IEC 60227-3 standards.

#### SPECIAL FEATURES

**BLS PVC TI 1 4691** provide very effective features as:

- Good mechanical properties
- High line speed
- Easy processability
- Easy colourability

#### TECHNICAL CHARACTERISTICS

PROPERTY	TEST METHOD	UNIT	TYPICAL VALUE
Density	ASTM D 792	gm/cc	1.46±0.02
Tensile Strength at Break	IEC 60811-1-1	MPa	≥13
Elongation at Break	IEC 60811-1-1	%	≥200
Mechanical properties after ageing at 80±2°C for 7 days			
Variation of Tensile Strength at Break	IEC 60811-1-2	%	±20
Variation of Elongation at Break	IEC 60811-1-2	%	±20
Loss of Mass at 80±2°C for 7 days	IEC 60811-3-2	Mg/cm <sup>2</sup>	≤ 2.0
Cold Elongation (at -15±1°C)	IEC 60811-1-4	%	>30
Cold Bend (at -15±1°C)	IEC 60811-1-4	--	No Cracks
Cold Impact (at -15±1°C)	IEC 60811-1-4	--	Pass
Heat Shock test (at 150±2°C)	IEC 60811-3-1	--	No Cracks
Hot Pressure test (at 80±2°C, 4 hr)	IEC 60811-3-1	%	≤50
Shrinkage	IEC 60811-1-3	%	≤ 4
Thermal stability 200°C±0.5°C	IEC 60811-3-2	Minute	≥ 90
Hardness	ASTM D 2240	Shore A	91±2

\*Tests have been carried out on extruded sample/pressed sheet from granules of **BLS PVC TI 1 4691**.

It is also available in Black and Colored, UV Stabilized variant. Preliminary tests are recommended in case of critical applications.

## TECHNICAL DATA SHEET

Jan. 25

### PROCESSING GUIDELINES

**BLS PVC TI 1 4691** can be processed in a normal PVC extruder with L/D ratio 24:1. Preheating of Granules at 70°C for 2 hours is recommended. Suggested temperature profile for processing:

Extruder Zones Temperature profile

Zone 1	Zone 2	Zone 3	Zone 4	Head	Neck & Die
140±5°C	150±5°C	165±5°C	170±5°C	180±5°C	180±5°C

### STORAGE

**BLS PVC TI 1 4691** must be stored in ambient temperature (not exceeding 35°C) in a shaded area in sealed and intact bags to avoid exposure to sunlight and moisture. The shelf life of this compound is twelve months but long storing may affect the properties and processability of the compound and for this reason it should be used within 6 months from the manufacturing date. It is better to preheat the material before use.

### PACKING

**BLS PVC TI 1 4691** is available in 25 kg bags with liners and 1000 kg Bulk bags. Other packaging is available on request.

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 being used.

#### Disclaimer:

The products mentioned herein are not intended for use in medical, pharmaceutical or healthcare applications and we do not support their use for such applications. To the best of our knowledge the information provided herein is accurate and reliable as on date, and is provided in good faith as reference point with respect to the product described here. BLS Polymers makes no warranties which extend beyond the description contained herein. There is no guarantee and/or warrantee what so ever, after processing. In any case, BLS liability shall be restricted to the replacement of material in packed condition. It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products. No liability can be accepted in respect of the use of BLS Polymers products in conjunction with other materials. The information contained herein relates exclusively to our products when not used in conjunction with any third-party materials. This information is intended to be used only as guideline for designers and processors of thermoplastics for extrusion. Because extrusion is complex, a set solution will not solve all problems. Observations on a trial-and-error basis may be required to achieve desired results. Data are obtained from specimens molded under carefully controlled conditions from representative samples of the product described herein. Properties may be materially affected by extrusion techniques applied and by the size and thickness of the item extruded. No assurance can be implied that all extrusion articles will have the same properties as those listed.