

RAW MATERIAL SPECIFICATION FOR THERMOPLASTIC ELASTOMERIC

1. Scope

This specification covers the requirement TPE compound used for insulation of submersible and welding cables.

2. Quality requirement

The material shall be supplied in uniform granules free from contamination, fines and other defects.

The material should present good process ability for extrusion line with excellent mechanical properties, and high resistance to copper catalysis, thermal oxidation.

PROPERTIES	UNIT	TEST METHOD	REQUIREMENTS
TYPE			TPE
COLOR			NATURAL
FORM OF MATERIAL			GRANULE
DENSITY AT 23 ± 2 ° C	g/cm ³	DIN 53479 IEC 811 1-3 ISO 2781 ASTM D- 792	0.90±0.03
HARDNESS AFTER 30 sec. AT 23 ± 2 ° C	SHORE A	DIN 53505 ASTM D- 2240	70±3
TENSILE STRENGTH, min.	N/mm ²	ISO 37 ASTM D- 412 IEC 811-1-1	12
ELONGATION AT BREAK min.	%	ISO 37 ASTM D- 412 IEC 811-1-1	500
TENSILE STRENGTH AFTER AGEING* min.	N/mm ²	ISO 37 ASTM D- 412 IEC 811-1-1 IEC 811-1-2	12
ELONGATION AFTER AGEING* min.	%	ISO 37 ASTM D- 412 IEC 811-1-1 IEC 811-1-2	450
BRITTLINESS TEMPRATURE	°C	ISO 974 ASTM D- 746	≤ -50
VOLUME RESISTIVITY@ 20 °C min.	Ω.cm	IEC 502-1 ASTM D- 257	≥10 ¹⁵
TEST VOLTAGE	kV	IEC 60502-1 ASTM D- 149	6.5

NOTE: * air oven ageing 7 days @ 135 °C

3. Packing

The material shall be properly packed in moisture proof bags 25 Kg

And about one ton packet on wooden pallet and then wrapped for easy transportation .

The material shall be marked for proper identification and each bag .

4. Test certificate

The supplier shall submit test report for each lot/batch of material

5. Criteria of acceptance/ rejection

The material shall be subjected to inspection and the test shall be carried out for acceptance/ rejection on part or whole lot.

6. Sample

Each tenderer should provide 25 kg as a sample of material provided to reach us before closing date for making tests. unless his material is already successfully tested .

The sample shall be the basis for accepting or rejecting the offer.