

RAW MATERIAL SPECIFICATION FOR PVC COMPOUND

1. Scope

This specification covers the requirement PVC compound used for insulation, sheathing and filling of electrical cables as per VDE 209/3.69 suitable for operation temperature of 70 ° C

2. Quality requirement

The material PVC shall be supplied in uniform granules free from contamination, fines and other defects, and must present good operation results on cable-insulation and sheathing machines and must give a product with a smooth, glossy, brilliant, and homogenous

The filling PVC will be used as a filling or bedding compound. The main purpose is to bind the cores together and give the cable around shape after laying up .the compound should be easily process on PVC extruders under normal conditions of extrusion and must not stick with the laid up cores, and should give a smooth surface finish.

PROPERTIES	UNIT	TEST METHOD		
Type			YM3	FILLING PVC
Color			BLACK	NATURAL
Form of material			GRANULE	GRANULE
Tensile strength, min.	N/mm²	IEC 811-1-1	12.5	4
Elongation, min.	%	IEC 811-1-1	150	200
Variation after ageing, max.	%	IEC 811-1-2 IEC 811-1-1	±20	
Tensile strength after ageing, min.	N/mm²	IEC 811-1-2 IEC 811-1-1	12.5	
Elongation after ageing, min.	%	IEC 811-1-2 IEC 811-1-1	150	
Cracking test temperature	° C	IEC 811-3-1	150±3	

Hardness after 30 sec. @ 23 ±2°c	Shore A	DIN 53505	80±2	70±5
Density at 23± 2 °C .max.	g/cm ³	DIN 53479 IEC 811-1-3	1.46	1.60
Loss in weight after ageing, max.	mg/cm ²	IEC 811-3-2	2	
Carbon black content	%	VDE 0472/9.71	2 ± 0.5	
Titanium dioxide content, min.	%			
Volume resistivity @ 20°C min.	Ω . cm	IEC 60502-1		
Test voltage	kV	IEC 60227-1		

3. **Packing**

The material shall be properly packed in moisture proof bags in a manner that avoids problem in transportation & storage. The material shall be marked for proper identification and each bag weights 25 kg

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 for each type provided to reach us before closing date for making tests.

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

Notice: Ageing performed at 80± 2 °c for 7× 24 hours

The density of materials shall be the same (before and after process)