

CPG

1/2

ANNEXURE:A-1

Technical Specifications of Insulating Mats

Insulating Mats should conform to IS 15652:2006 for Electrical Purposes for application in Substations, Power Plants etc. The Insulating Mats are to be installed on the floors before switchgear panels for ensuring the safety of workmen from possible leakage of current.

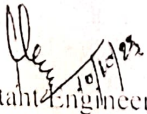
Size	Roll of 1 MTR width X 10 MTR length (Each)
Colour	Black
Finish	One side plain, other side Patterned
Tensile Strength	For Temp. -10 to 55°C: 15 N/mm ² (Min.)
Elongation At Break	For Temp. -10 to 55°C: 250% (Min.)
Insulation Resistance With Water	10,00,000 Mega Ohms (Min.) with 500V test, 1,00,000 Mega Ohms (Min.) with 5KV test
Leakage Current at AC proof voltage	10 mA (Max.)
Flame Retardance	The Mat Should be retardant to fire as per IS.
Low Temperature Resistance	No tear, break or crack should be observable in Mats under force of 100N for 30 Seconds at -10°C±3°C as per IS
Aging Test (For Temp. -10 to 55°C)	
Tensile Strength	Not less than 75% without Aging.
Elongation at break	Not less than 75% without Aging.
Effect Of Acids (eg HCL), Alkalis (eg NaOH), Transformer Oil, Diesel, etc. (For Temp. -10 to 55°C)	
Tensile Strength	Not less than 80% without Aging.
Elongation at break	Not less than 80% without Aging.
Mat should be suitable for both AC & DC electrical installation	
Mat should have good mechanical properties to withstand load and movement of breaker trolleys & associated electrical equipment.	

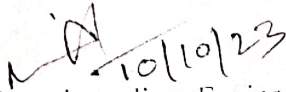
Sr. No.	Class of Mat	Thickness	Dielectric Strength AC (RMS)	AC RMS Voltage	AC Proof Voltage
1	A	2.0mm	30KV	3.3KV	10KV

Note: 1. The tenderer shall arrange at its works/premises all the tests as per IS standards/specifications. The tests shall be conducted in the presence of customer's representative during inspection and test report shall be submitted.

2. The tenderer will supply test certificates of the insulating mats as per IS 15652:2006 from Central Power Research Institute (CPRI) or Electrical Research & Development Association (ERDA).

3. Certificates of Type Tests conducted on the insulating mats during last two years shall be submitted.


Assistant Engineer,
Switchgear Mtc. Cell, O&M,
GHTP, Lehra Mohabbat.


Addl. Superintending Engineer,
Switchgear Mtc. Cell, O&M,
GHTP, Lehra Mohabbat.