



TME/2011

PRODUCT STANDARD

TME DIVISION, BHOPAL

TM 11520

Rev. No. 01

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TWO COMPONENT POURABLE SILICON RUBBER COMPOUND VALCANISED AT ROOM TEMPRATURE.**1. Scope:**

This specification describes about a pourable, two-component (base + catalyst) silicone rubber compound that vulcanizes at room temperature mixed in given proportion and used in filling voids and spaces in traction motor viz. slot exit in wound stator, outgoing connections, terminal box etc.

2. Mixing guidelines:

The two parts (base + catalyst) to be mixed at the time of application in a ratio as recommended by supplier and converted to a pourable compound of thixotropic consistency at room temperature.

3. Properties of base Compound & Catalyst (as received):

Property	Unit	Specified value	
		Base	Catalyst
Colour	-	Preferably, light shade other than black	
Viscosity at 23°C	mPa s	To be informed by supplier for base & Catalyst separately.	
Storage life below 20°C	Months	12 months (minimum)	12 months (minimum)
Density at 23 °C	gm/cc	1.09 ± 0.1	

4. Properties of mixed compound:2

Property	Unit	Specified value	Test method
Physical state at room temperature	-	Pourable , thixotropic consistency compound	-
Mixing ratio	-	To be informed by supplier	-
Viscosity	mPa s	5000-13500	ISO 3219
Pot life at room temperature	Minutes	40 (minimum)	IEC: 60455-2

5. Recommended Curing Cycle for mixed compound:

25°C - 24 hrs or 70°C - 3hrs or 150 °C - 30 min (curing time should not be more than 24 hrs at room temperature)

6. Cured properties of compound (Only for Type Test):

Property	Unit	Specified value	Test method
Hardness	Shore A	25-30	DIN 53505
Tensile Strength	N/mm ²	4.5 (Minimum)	DIN 53504
Elongation at break	%	550 (Minimum)	DIN 53504
Tear Strength	N/mm	20 (Minimum)	ASTM D 624 B

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Distribution

Prepared


Checked

Approved

Rev. No. 01
23.03.19TME - 2 TNX - 1
TXM - 1 TAM - 1
QMX - 1 TSD - 1

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7.0 Following details of offered material to be mandatorily submitted by supplier :

7.1 Supplier to submit technical datasheet of offered material mentioning properties as per clause no. 3, 4, 5 & 6 of this specification.

7.2 Material Safety Data Sheet

8.0 Shelf life and keeping property:

When stored under cover in a dry place in the original sealed container at room temperature (25°C) the material shall retain the properties prescribed in this specification for a period of at least 12 months after the date of manufacture, which shall be subsequent to the date of placing order.

9.0 Test certificates:

Three copies of test certificates shall be supplied for each lot, unless otherwise specified on order. In addition, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

TM11520, BHEL purchase Order No, Supplier's Name/Grade/Identification No., Weight, and Packet/Container/Drum No. , Properties of test as per this standard.

9.0 Approved grades :

Following are the approved grades:

- Silicon Rubber component, Elastosil RT 622 A & Elastosil RT 622 A of M/s Wacker Metroark Chemicals
- Neukasil RTV 230 & NeuKASIL Cross linker A 149 of M/s Altropol
- Xiameter RTV 4250 & Catalyst S of M/s Dow Silicones

Note:

- 1) Any other grade can be offered against this specification subject to material properties confirming to this specification.
- 2) For any other grade supplier to submit test certificate as per this specification from NABL/any internationally accredited lab or sample approval at BHEL works.