



PRODUCT STANDARD
TME DIVISION, BHOPAL

TM 88079

TME 2011

PAGE 01 OF 02

SPECIFICATION OF HEW821 TYPE EPOXY COMPOUND

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1. Scope

This specification describes HEW 821 Type Epoxy Compound (hereafter abbreviated as compound) to be used for adhesion of coil and core for electrical machines.

2. Ingredient

2.1 This compound consists of main resin, hardener and filler. The composition and mixing ratio are given in Table 1.

Table 1

Composition	Symbol	Mixing Ratio (wt)
Main resin	HEW 821A	100
Main resin	HEW 821B	20
Hardener	HEW 821C	87
Filler	HEW 821D	310.5

2.2 As each composition will be delivered with separated container. They have to be mixed before using.

3. Quality

3.1 Quality of each component of this compound is given in Table 2.

Revision: 02
Table 2, Clause 4 added
Date: 06/09/2010

Distribution

Qty.

Approved:
(S.P.Singh)

Prepared:
Shishu pal
DE/TME

Checked:
V. Rawtiya
Sr.Engr./TME

Date:
06/09/2010

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(Signature)
6/9/10



PRODUCT STANDARD
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TM 88079

TME 2011

PAGE 02 OF 02

Table 2

Item	HEW 821A	HEW 821B	HEW 821C	HEW 821D
Specific gravity (25°C)	1.167 - 1.182	1.08 - 1.10	1.22 - 1.24	—
Viscosity(Poise at 25°C)	3.0 - 6.0	0.06 - 0.09	1.5 - 3.0	—
Water Content (%)	≤ 0.25	≤ 0.5	≤ 0.2	≤ 0.03
Grading	—	—	—	≥ 78% pass for 300mesh
PH	—	—	—	7 ± 0.5
Shelf life (months) (after mfg. date)	12	12	12	36

3.2 Quality of this compound is given in Table 3.

Table 3

No.	Item	Unit	Quality	Remarks	
1	Viscosity	25°C	Poise	50 - 150	—
		60°C	Poise	2 - 4	
2	Gelation time at 160°C	hours	4 - 6	—	
3	Adhesive strength with iron plate	25°C	kg/cm ²	≥ 50	Curing condition : 160°C for 20 hours.
		150°C	kg/cm ²	≥ 40	
4	Flexural strength	25°C	kg/cm ²	≥ 1000	Curing condition : 160°C for 20 hours
		150°C	kg/cm ²	≥ 400	
5	Thermal weight loss	%	≤ 4	at 200°C, 140 days	

4. This specification is equivalent to CLW spec no. A0116 Alt. ""

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