



रेल कोच फैक्टरी, कपूरथला  
RAIL COACH FACTORY, KAPURTHALA




No.: MD35131

August 25, 1999

**Sub: Specification for Heavy Duty Industrial Sealant for metallic surface.**  
Ref: CQM letter no. MTQ/11041 dated 17.08.99.

Please find enclosed herewith a copy of the specification for Heavy Duty Industrial Sealant for metallic surface bearing RCF MECH DESIGN's specification no. MDTs 061 Rev-'Nil'.

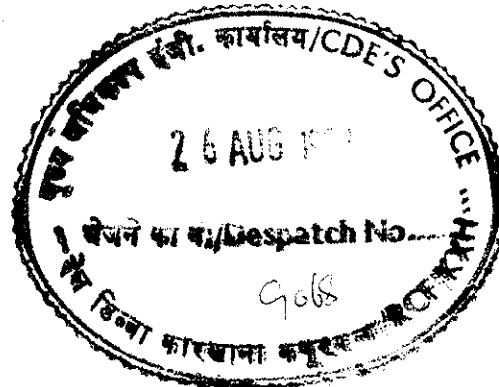
Encl: As above.

  
(Saritosh Sinha)  
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RAIL COACH FACTORY, KAPURTHALA



MDTS: 061 REV-"NIL"  
DATED: 25.08.1999

SPECIFICATION FOR HEAVY DUTY INDUSTRIAL SEALANT  
FOR MATERIAL SURFACE

NAME	DESIGNATION	SIGNATURE	DATE	LEVEL
Mr. G. S. Kohli	SSE/Speci.	<i>[Signature]</i>	25.8.99	PREPARED
Mr. SANTOSH SINHA	Dy CME /TW	<i>[Signature]</i>	25.8.99	AGREED
				REVIEWED
Mr. A. Khair	CDE	<i>[Signature]</i>	25.8.99	APPROVED

ISSUE/REV	DETAILS OF CHANGES	DATE

*[Signature]*  
PREPARED BY

*[Signature]*  
AGREED BY



**SPECIFICATION FOR HEAVY DUTY INDUSTRIAL SEALANT  
USED ON METALLIC SURFACES**

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**1.0 SCOPE:**

This standard prescribe the requirement and the method of sampling and test for heavy duty industrial sealant used for sealing metallic surfaces.

**2.0 REGISTERED SAMPLE:**

Samples supplied in advance by the prospective supplier and registered by the RCF after testing it to all requirement of this standard. A complete record shall be kept for its performance in respect of all tests.

**3.0 REQUIREMENTS:****3.1 Composition:**

The material shall be based on modified epoxy resin with compatible hardeners, fillers and shall be free from natural resins or their derivatives or their modifications in any form. It shall be of such a composition as to satisfy the requirements of this standard. The composition of the bulk supply shall be exactly similar to that of the registered sample.

**3.2 Durability:**

The sealant should meet with the requirement of table shown under clause 4.0

**4.0 TECHNICAL REQUIREMENT:**

SN	CHARACTERISTICS	REQUIREMENTS
1.	a) Application in flat position b) Application in vertical position.	No sagging/wrinkling should be observed.
2.	Dry film thickness min.	1.0 mm
3.	Drying time @ 27 ± 2 Deg. C. a) Surface Dry b) Hard Dry c) Drying time at 100° C for hard dry.	5 hrs. max. 15 hrs max. 20 minutes max.

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4.	Hardness Shore 'D'	70-80
5.	Ability to withstand compressive force (up to 5 tons) when applied over longitudinal butt weld joint sealant coated made on 300x150x2.0 mm sheets.	No cracking or damage to film should be observed.
6.	a) Dynamic loading/as per sketch enclosed. b) Dye penetrant test after jitting for inducement of cracks etc.	Sample shall cross 2.5x100000 cycles. No crack shall be revealed.
7.	Thermal stability at 70° C for 48 hrs.	No crack or lifting of film should be observed.
8.	Water immersion test for 7 days.	Film should not be scratchable (nail pressure test under 1 kg load)
9.	Hardness after immersion in water (72 hrs)	Hardness shall not fall below 20% of value.
10.	Leakage through filled welding holes under water pressure of 05 psi (tap water)	No leakage to be observed.
11.	Compatibility with ROZCP and Epoxy Zinc Phosphate Primer.	To be compatible.
12.	resistance of film to shot blasting.	Shall withstand and no leakage as at SN-9.
13.	Thermal stability in the continuous cycle 0° C - 18 hrs, 70° C - 24 hrs.	No cracking or damage to the film should occur.
14.	a) Application of ROZCP/ Epoxy zinc phosphate after 5 hrs of sealant application in case of room temp. curing. b) Application of ROZCP after 25 minutes in case forced curing.	Capable of being applied without damaging sealant film.  --DO--
15.	Resistance to conditions of humidity chamber as per IS:101-64 for 72 hrs.	No damage to film should occur and underneath steel panel should not show signs of corrosion.
16.	Shear strength (25x25 mm shear area).	1000 gm/sq.mm min

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17.	Salt spray test (7 days)	No corrosion under sealant surface show.
18.	Pot life (Min)	02 hrs at 27° C 01 hrs at 40° C

5.0 **PACKING & MARKING:**

5.1 Packing:

The material shall be packed in one kg containers or as agreed between manufacturer and supplier.

5.2 Marking:


Each container shall be marked with the following:

- a) Name of the material
- b) Name of the manufacturer.
- c) Weight of the material in kg.
- d) Month and year of manufacturer.
- e) Batch No.

5.3 Instructions:

The firm shall supply instruction manual with each packing or with a set of packing mentioning about mixing and handling etc.

  
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3