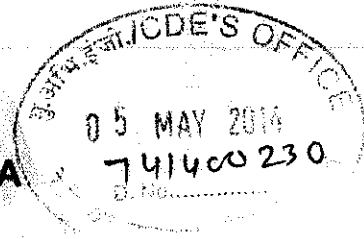


RAIL COACH FACTORY KAPURTHALA




MD35131

Dated: 05-05-2104

**Sub: Corrigendum no. 1 to specification no. MDTS-115 Rev-'Nil', Schedule of requirements of 3-D Glass fabric**

Following Corrigendum No. 1 to specification no. MDTS-115 Rev-'Nil' is issued:

Para	To be read as	In place of
Para 4.1.4; Width of core	1500 mm or 1270 mm (A tolerance of $\pm 30$ mm at any point may be allowed to mat trimmed on both edges)	1500 mm (A tolerance of $\pm 30$ mm at any point may be allowed to mat trimmed on both edges)

  
(Suraj Praksah)  
Dy CME/D-1

CQM, CPLE, CWE (FUR), CMM/HSQ, CMM/TKJ, Dy. CMM/Fur/LHB, Dy CCMT, DY.CPLE-III

SSE / LIB. DESIGN

✓ SSE / Records  
SE / Design / RCF / TKJ

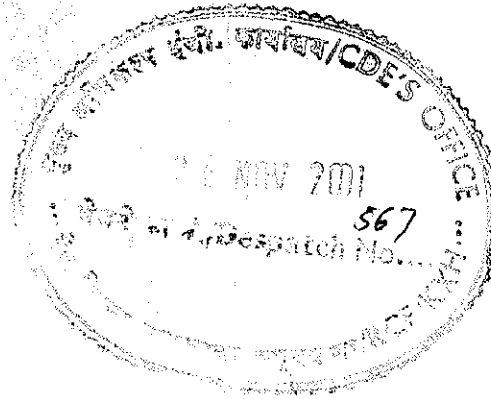
Copy for kind information to:

CDE





उप मुख्य यंत्रिक अभियन्ता (डिजाइन)  
रेल विभागा कारखाना  
कपूरथला-144 602.  
DEPUTY CHIEF MECHANICAL ENGINEER (DESIGN)  
RAIL COACH FACTORY,  
KAPURTHALA-144 602.  
TEL : 0181-58356.  
TELEX : 0385-296 RCF K IN  
FAX : 0181-57091



MD35131

dated.26.11.2001

Sub: Issue of Specn. MDTs.115 Rev. Nil.  
Schedule of Technical Requirements  
for 3-D Glass Fabric.

Please find enclosed herewith a copy of the Specn No.  
MDTS.115 Rev. Nil. Schedule of Technical requirements for 3-D  
Glass Fabric for necessary action & records.

Enc; As. above

*Hilb*  
Dy. CME/TOT. CME/Dev

- CQM
- CPLE
- CWE
- CMT
- CMM
- SSE/REB. (ORIGINAL COPY)
- JE. I/DESIGN/TKJ/NDLS
- SSE/LHB.
- ✓ SSE/Lib

Copy for kind information to:  
Dy. CME/D  
Dy. CME/Dev.  
CDE.

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR 3-D GLASS FABRIC	MDTS 115REV NIL PAGE 0 OF 2 DATED 05.11.2001
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NAME	DESIGNATION	SIGNATURE	DATE	LEVEL
Harish Kumar	SSE/TOT	<i>hkf</i>	6/11/2001	Prepared
Santosh Sinha	Dy.CME/TOT	<i>ss</i>	7/11/2001	Agreed
Santosh Sinha	Dy.CME/TOT	<i>ss</i>	7/11/2001	Reviewed
Arvind Khare	CDE	<i>AK</i>	7/11/01	Approved

Issue/Rev	Details of Changes	Date

(S)

*hkf*  
PREPARED BY

*ss*  
AGREED BY

SPECIFICATION	SCHEDULE OF TECHNICAL REQUIREMENTS FOR 3-D GLASS FABRIC	MDTS I/5 REV NIL PAGE 1 OF 2 DATED 05.11.2001
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**1. Scope:**

This specification covers the general and technical requirements for 3-D glass fabric.

**2. Applicability :**

This material shall be used as lightweight sandwich laminate for FRP components.

**3. Functional Requirements:**

- Material of fabric shall be glass fabric (woven E-Glass material), consisting of at least two deck layers bonded by vertical glass piles.
- It should be compatible with resin system to RCF specification no. MDTS084.
- The fabric should be such that when it is compressed during impregnation with resin it should rebound to nearly its original height resulting in a lightweight sandwich laminate.
- It should be possible to cut the material with scissors or knife.

**4. Technical Requirements:**

**4.1 Properties of fabric**

#	Property	Value
1.	Thickness of fabric	8.0 ± 0.8 mm
2.	Thickness of Face	0.35 ± 0.1 mm
3.	Thickness of Core	7.3 ± 0.7 mm
4.	Width of core	1500 mm (A tolerance of ± 30 mm at any point may be allowed to mat trimmed on both edges.)
5.	Weight of fabric	1.00 Kg/m <sup>2</sup> (A tolerance of ± 7 percent may be allowed)

**4.2 Properties of laminate**

A laminate of 250 x 250 mm prepared by using 8 mm fabric specified in the specification and 3 layers of CSM as per IS: 11551 on both sides with approximately 700 gms. of resin to RCF specification no. MDTS084 shall be subjected to cross breaking strength as per IS: 11551 in two perpendicular directions. The minimum value should be as given below :

  
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- a. Warp Direction 57 Mpa
- b. Weft Direction 80 MPa

**5. Shelf life:**

The mat shall comply with the requirements of this specification for a period of not less than one year.

**6. Packing:**

The material shall be rolled on a tube, the roll shall be enclosed in a polyethylene bag and packed in a suitable container in such a manner as to prevent free movement.

**7. Documents to be submitted by supplier for prototype approval:**

For the first supply, the supplier shall submit a sample of 0.5 m in standard width for approval before supplying bulk quantity alongwith the Work Test Certificate from a reputed test lab. The sample shall be tested as per clause 4.0 of this specification.

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*hsuf*  
PREPARED BY

*[Signature]*  
AGREED BY