

Rail Coach Factory, Kapurthala

MD46231



Dated: .20.01.2020

Subject: Issue of Technical specification No. MDTS 097 Rev-01

Please find enclosed a copy of Technical specification No. MDST 097, Rev-01 for information and necessary action at your end.

Specifacaton No. **MDTS 097 Rev-01**

Schedule of Technical Requirements for Pre panelled Honeycomb partition frame.

Records to be updated accordingly.

PK LUTHRA
ADE/S&B

CQM, CPLE, CWE(SHELL) CMM/HSQ, CMT, DY. CPLE-III

SSE/RECORD (with original specification)

SSE/LIB. DESIGN ✕

SSE/DESIGN/RCF/TKJ

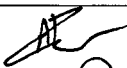
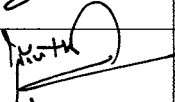


copy for kind information to:

CDE ✕

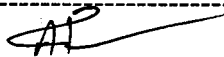
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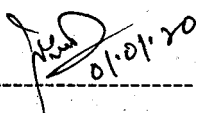
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Name	Designation	Signature	Date	Level
AJAI PAL SINGH	SSE/BODY SHELL		31/12/19	Prepared
P.K.LUTHRA	ADE/S & B			Agreed
KAMAL KUMAR	Dy CME/D-1			Reviewed
M. BHIMTE	CDE			Approved

Issue/REV.	Detail of changes	Date
Rev. 01	Para: 2.3, 2.4, 2.5, & 2.6 modified. Para: warranty clause modified. Para: 4.1 to 6.1 added. Para 7.1, 7.2 & 8.1 were 4.1, 4.2 & 5.1 respectively.	31.12.2019


Prepared by


01.01.20
Agreed by

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1. Scope:

This schedule of technical requirements covers Honeycomb sandwich pre-panelled partition frame with 1.6mm thick HPL sheet on both sides with steel inserts to the material indicated on relevant.

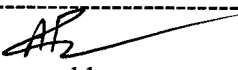
Drawings. These shall be required for mounting the accessories such as magazine bag, coat hooks, head rest & berth reading lights. These partition frames shall be used inside the railway passenger coaches or other similar applications on passenger coaches.

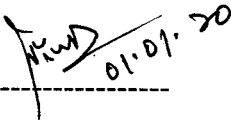
2. Technical Requirements:

- 2.1. Over all dimensions of sandwich honeycomb partition frame shall confirm to the drawings mentioned by the indenter.
- 2.2. Steel inserts should have corrosion protection treatment such as phosphating, precoated with suitable primer paint before insertion, material should confirm to IS:2062-92 Fe410WB OR IS:5986-92 Fe 330 or as indicated on drawings.
- 2.3. HPL Sheet should match the requirements mentioned in latest version of MDTS-086, applicable on date.
- 2.4. Honeycomb core shall be as per designation "06-08-1270(AI52000)-PT" OF IS:11642 (Pt-1)-1986 and must be in single piece. Laying of Al. core of honeycomb, ribbon direction should not be parallel to the joint of HPL sheet as shown in drawings.
- 2.5. Colour of HPL Sheet shall be approved by RCF on a sample.
- 2.6. Surface finish of HPL sheet shall be semi mat.
- 2.7. Bonding adhesive/Glue used shall be a self extinguishable and non toxic in nature because the partition frames shall be used in the coach.
- 2.8. Geometrical tolerances for \square (squareness) of individual partition frame shall be contained within 2mm in 1000mm as per IS:8000(pt-1)-76.

3. Test Methods:

- 3.1. Honeycomb partition frame shall be tested in accordance to IS:11642 (PT-2)-1986.


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4. SPECIAL PROCESSES AS PER IRIS:

4.1. QAP (quality assurance plan) as per guide line 6:2014 of IRIS to be followed.

Description	Specification/Required value
Al. honeycomb core	Al Hex Honeycomb core to confirm IS:11642(Part 1)-1986
HPL SHEET	MDTS-086 (latest Version)
Adhesive/Glue	As per MDTS -097, clause 2.7 Toxicity- HL3 (EN-45545) LOI – 28% min., (IS-13360 Part 6, sec-19:2001) Resistance to spread of flame- Class B min. (Appendix-11 of UIC-564-2 OR) Smoke density Class B min. (Appendix-15 of UIC-564-2 OR)
Corrosion protection of steel insets	As per MDTS -097, clause 2.2
Acceptance and type test for honeycomb sandwich construction	As per IS:11642(Part 2)-1986

5. FIRST ARTICLE INPECTION/PROTOTYPE:

- 5.1. First article inspection will be done by CDE/RCF or its authorized agency. Successful tenderer would be required to submit quality assurance plan (QAP) and all relevant documents required for FAI. including special processes. First article inspection exclusively to be performed for special processes i.e. Bonding and corrosion protection.
- 5.2. First article inspection of complete Honeycomb partition frame to be carried out after passing above two special processes.
- 5.3. After passing above three FAI's Bulk supply will be made after First article approved by CDE/RCF.
- 5.4. FAI (First Article Inspection) shall be carried out as per requirement of ISO/TS 22163:2017.

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- 5.5. External provider shall carryout FAI as per ISO/TS22163:2017 requirement prior to submission of documents to RCF, Kapurthala.
- 5.6. Validation of all Special process (including outsourced Special Process) shall be carried out as per requirement of ISO/TS22163:2017.
- 5.7. Firm has to fulfill all the requirements of IRIS to ISO/TS22163:2017.
- 5.8. Approval from RCF to be obtained for rectification of non-conformance. Such rectified products to be identified separately during delivery.
- 5.9. Special process monitoring records to be maintained and submitted to RCF as required. Bonding should be carried out by qualified welders only. Process parameters to be maintained as per validated special process.

6. MARKING:

- 6.1. The tenderer name or initial with month and year of manufacturing shall be marked on finished product.

7. Packing:

- 7.1. Each partition frame shall carry an identification mark of manufacturer along with batch number and year at location such that it should not affect the interior of the coach.
- 7.2. Supplier shall ensure properly packed condition in order to avoid any damage during transportation and handling.

8. Warranty:

- 8.1. The tenderer shall give warranty for any part of the partition frame failing or proving unsatisfactory in service due to defective design, material or workmanship within 7 Yrs from the date of supply or 6 Yrs from the date of fixing of p/frame whichever is earlier.


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