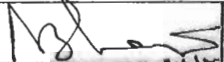
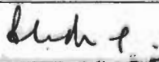
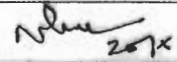
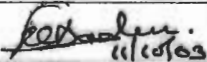


GOVERNMENT OF INDIA
(Ministry of Railways)

SPECIFICATION FOR
GRAPHITE WAFER

Issued by

MECHANICAL DRAWING OFFICE
RAIL WHEEL FACTORY
YELAHANKA, BANGALORE-560 064
I N D I A

			
CME	CWE/Mfg	Dy. CME/Mfg	SSE/D
APPROVED	REVIEWED	VERIFIED	PREPARED

SPECIFICATION FOR GRAPHITE MOULD BLANKS**1.0 SCOPE:**

The Specification covers the design, manufacture and supply of Graphite Mould Wafer at Rail Wheel Factory, Yelahanka, Bangalore - 560 064, Karnataka State, India as per instructions and conditions of contract.

2.0 GENERAL DESCRIPTION:

Graphite Mould Wafer.

3.0 JOB REQUIREMENTS:

3.1 The Graphite Wafer shall be used as a spacer in graphite moulds (Cope and Drag) for manufacturing Cast steel wheels by the pressure pouring method, i.e., by the method of forcing upward the molten metal kept below the mould to the bottom of the mould cavity. The temperature of molten metal is in the range of 1600-1620°C. The wafer should have sufficient thermal shock resistance to withstand the high temperatures.

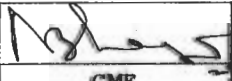
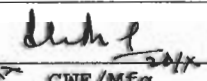
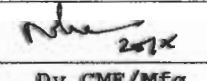
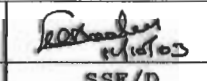
4.0 TECHNICAL DATA:**4.1 Size of Graphite Wafer**

Sl. No.	Wafer Dia in mm (tol. +6/-0)	Wafer Height in mm (tol. +0/-5)
1	1105	160
2	1105	210
3	1232	160
4	1232	210
5	1334	160
6	1334	210

4.2 Bulk density, gm/cm³ : 1.5 - 1.7 (ASTM C-559)

4.3 Electrical resistivity : 15 x 10⁻⁴ Ohm cm max.
(measured parallel to axis)

4.4 Permeability : 0.16 - 1.40 AFS units.

			
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(measured parallel to axis)

4.5 Flexural strength :Not less than 100 kg/cm²
(4 point loading as per ASTM C-651-91)


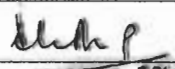
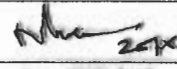
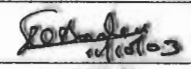
4.6 The Wafer shall be uniform in structure and shall be free from extraneous material with grain size of minus 1.7 mm.

4.7 Ash content should not exceed 0.2%.

5.0 INSPECTION AND ACCEPTANCE:

Acceptance will be based on manufacturer's internal test certificate in respect of parameters mentioned in Cl.4. All supplies should be accompanied with manufacturer's test certificate.

5.1 The supplier shall legibly print the permeability values and ash content on wafers.

			
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