

**TEST CERTIFICATE**

**TEST CERTIFICATE ACCORDING TO EN10204 TYPE 3.1**

<b>Customer Address:</b> M/S - SHIVOM TRADING. C/O OM HOUSEHOLD APPLIANCES PVT. LTD. OPP. P.S. PLYWOOD, SURVEY NO.192 8-B, NATIONAL HIGHWAY, GONDAL ROAD, VERAVAL(SHAPER) DISST. RAJKOT	<b>Material</b>  <b>Specification</b>  <b>Heat No.</b> <b>Grade</b> <b>Supply Size</b> <b>Supply Condition</b> <b>Colour Code</b>	<b>Induction Route</b>  <b>AR-J8245 ✓</b> <b>ST52.3 ✓</b> <b>125 MMØ ✓</b> <b>AS HOT ROLLED</b> <b>GREY ✓</b>	<b>Test Certificate No.</b> <b>Date</b> <b>Invoice No.</b> <b>Weight (MT.)</b> <b>INGOT SIZE</b> <b>Reduction Ratio</b> <b>No's of Pcs</b> <b>No's of Bundle</b> <b>Multiple</b>	<b>2024-25/0016114</b> <b>17-09-2024</b> <b>10651</b> <b>8.725</b> <b>9"X10"</b> <b>4.76:1</b> <b>18</b> <b>4</b>
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**TEST RESULT**

**CHEMICAL ANALYSIS (ASTM E 415 / IS 8811)**

Element	C%	Mn%	Si%	S%	P%	-	-	-	-	Al%	-	-	-	-	-	-	-
Spec.	Min	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Max	0.220	1.600	0.500	0.035	0.035	-	-	-	-	-	-	-	-	-	-	-
	Achieved	0.160	1.140	0.240	0.016	0.026	-	-	-	-	0.023	-	-	-	-	-	-

**IC ISSUED BY :**  
**Shivom Trading Co. (Shaper)**  
**1090 KG**  
**Job No. ST2425-1235**  
**Date : 7/1/2025**

**Mechanical Properties**

Parameters		IS:1608 / ASTM A370				IS:1500	
		Tensile Strength	Yield Strength	Elongation	Reduction Area	Surface Hardness	As Rolled
Spec.	Min	-	-	-	-	-	-
	Max	-	-	-	-	-	-
	Achieved	-	-	-	-	132/141	-

**Metallographic Properties**

Parameters		Inclusion Rating (IS : 4163 / ASTM : E45A / JK Chart)									Grain Size IS 4748 / ASTM E112 (No.)	Micro Structure	
		WORST FIELD RATING											
		Type	A		B		C		D				DS
Series	Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick			
Spec.	Min	-	-	-	-	-	-	-	-	-	-		
	Max	-	-	-	-	-	-	-	-	-	-		
Achieved		2.0	0.5	1.5	0.5	1.0	0.5	1.5	1.0	-	6.5 to 7.0	Pearlite+Ferrite	

**Physical Properties, Non Destructive Test & Other Test**

Parameters	Internal Soundness ASTM E381	Surface Inspection IS 13352	Magnetic Particle Inspection	Ultrasonic Test ASTM A388	Spark Test	X-RF
Spec.	-	-	-	-	-	-
Achieved	Better than C2,R2,S2	Satisfactory	100%	100%	100%	100%

**Remarks :**

Induction Route material being not homogeneous. So, we can not guarantee repeatability of Inclusion Rating/ Hardenability or any other mechanical properties in test samples. We stand guarantee of material up to black bar stage only.

Prepared By: GURPREET	Approved By: 	Pre dispatch Inspection: 
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In case of any Test certificate Issue, please inform Dinesh Singla at quality04@arorairon.com, Mobile No.+919914538700

**Date :** 7/1/25  
**Batch No. :** 557L  
**Material :** ST52.3  
**Section :** 125mmØ  
**Qty :** 1090kg  
**Supplier :** Shivom  
**Steel Mill :** A8084