

**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 Specification</b>  Heat No. AR-J8245 ✓ Grade ST52.3 ✓ Supply Size 125 MMØ ✓ Supply Condition AS HOT ROLLED Colour Code GREY ✓	<b>Induction Route</b>	<b>Test Certificate No.</b> Date 17-09-2024 Invoice No. 10651 Weight (MT.) 8.725 <b>INGOT SIZE</b> 9"X10" <b>Reduction Ratio</b> 4.76:1 <b>No's of Pcs</b> 18 <b>No's of Bundle</b> 4 <b>Multiple</b>	2024-25/0016114 17-09-2024 8.725 9"X10" 4.76:1 18 4
--	---	------------------------	--	---

**TEST RESULT**

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

Element		C%	Mn%	Si%	S%	P%	-	-	-	-	Al%	-	-	IC ISSUED BY :	-	-
Spec.	Min	-	-	-	-	-	-	-	-	-	-	-	Shivom Trading Co. (Shapar, P)	-	-	
	Max	0.220	1.600	0.500	0.035	0.035	-	-	-	-	-	-	1090	-	KG	
Achieved		0.160	1.140	0.240	0.016	0.026	-	-	-	-	0.023	-	IS No. 572425-1235	-	-	

Date : 7/11/2025

**Mechanical Properties**

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

**Metallographic Properties**

Parameters		Inclusion Rating (IS : 4163 / ASTM : E45A / JK Chart) WORST FIELD RATING								Grain Size IS 4748 / ASTM E112 (No.)	Micro Structure
		Type	A	B	C	D	DS	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%

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:

In case of any Test certificate Issue, please inform Dinesh Singla at quality04@aroriron.com, Mobile No.+919914538700

Date :	7/11/25
Batch No. :	557L
Material :	ST52.3
Section :	125 mmØ
Qty :	1090 key.
Supplier :	Shivom
Steel Mill :	A8084