

**JYOTI HEAT TREATMENT PVT LTD.**

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Doc No: JHTPL/QA/F-04

Rev No: 00/--

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TEST CERTIFICATE

Test certificate no:	JHTPL/5.021/2025	Customer Name:	Sapotech Components Pvt. Ltd.
Part no.:	SAP47818805_6	Part name:	Tube_HT
Date:	2025-06-18	Material:	ASTM A513
ID No.:	-	Qty.:	3328

Parameters

Parameter	Specified	Actual
Heat Treatment	CHT	CHT
Surface Hardness	86-88 HR15N [76-79 HRA]	81-82 HRA [Before Grinding]
Surface Hardness	0.86 mm 83 HR15N Min.	84 HR15N
Core hardness	NA	31 HRC
Case depth @ OD	0.90 - 1.10 mm @ 446 HV1	0.94 mm [Before Grinding]
Microstructure	Case: RA <10-15%, Tempered martensite	Case: RA<08-10%, Fine Tempered martensite.
Microstructure	Core: Ferrite, Perlite.	Core: Ferrite, Perlite.

Hardness Traverse:

Distance(mm)	Hardness (HV1)	Distance(mm)	Hardness (HV1)
0.1	696	-	-

Surface Hardness of 05 Samples:

Sample Nos.	1	2	3	4	5
Surface Hardness in HRC	81	81	82	81	81

Remarks: Tube_HT is cut for micro.

Input Shaft Z - 19 BMM11C00560 is cut for micro.

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