



Performance Verification (Indirect Calibration) Certificate of Rockwell Indenter

Date of Calibration	Date of Issue	Page	Certificate Number
Thursday, May 11, 2017	Thursday, May 11, 2017	1 of 1	ULR-CC442925000100146F

Customer:	Fine (Mirashi) Calibration and Testing Laboratories LLP B-7/12, MIDC Area, Miraj, Dist. Sangli, Maharashtra 416 410
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Indenter ID/Serial No:	550
Indenter type /Make:	Rockwell Diamond indenter/ FMI
Verification scale(s):	HRC, HRA, HRD, HR15N, HR30N & HR45N

Environmental conditions	
Temperature:	23.8° C
Humidity:	38%

Calibration details & Traceability:

The above Rockwell indenter is performance verified against reference indenter using a standardising machine at FMCTL. The standardising machine is directly calibrated as per the requirements of ISO 6508-3:2015 and ASTM E18-16 annex A2. The standardising machine is calibrated using devices traceable to NPL-India, NPL-UK, IMGC, NIST or PTB either directly or through NABL, UKAS, NVALP or DAKKS accredited laboratories.

Calibration Method: FMCTL/SOP/Rockwell based on ISO 6508-2 and IS 1586 (Part 2) standards.

Measurement Results				
Hardness Level	HRC 25	HRC 63	HR30N 64	HR15N 91
Deviation form reference indenter	0.36 HRC	-0.21 HRC	0.04 HR30N	0.07 HR15N
Admissible deviation:	± 0.8 HRC	± 0.8 HRC	± 0.8 HR30N	± 0.8 HR15N
Expanded uncertainty:	± 0.73 HRC	± 0.34 HRC	± 0.56 HR30N	± 0.44 HR15N
Conformance Statement:	This indenter fulfil the requirements of performance verification in accordance to the standards: ISO 6508-2 & IS 1586 (Part 2)			

Validity:

The verification of this indenter is only valid for scales as mentnioned above. The user is obliged to have the indenter re-verified at appropriate intervals as necessary.

Approved Signatory:

A K Mirashi

K S Mirashi

- Note:** 1) This certificate refers only to the particular item submitted for calibration.
2) This certificate shall not be reproduced, except in full, unless prior written permission from CEO, FMCTL. This certificate is invalid without signature.
3) Expanded uncertainty in measurement is expressed at 95% confidence level with k = 2