Acme Manufacturing · Test Lab

JOB

Test Results

2026-0142

Rockwell hardness · HRC · ASTM E18-22

Item	Bracket hardness check	**Report date**	Nov 4, 2026
Requested by	M. Alvarez	**Department**	Manufacturing Eng.
Method	ASTM E18-22	**Test date**	Nov 3, 2026
Tested by	K. Chen	**Reviewed by**	D. Brooks

3 samples tested: 2 pass, 1 fail

Observations

Lot B (sample -03) averaged 37.1 HRC, below the 38 HRC minimum on all three readings. Lot A (samples -01 and -02) is within spec. Light scale on -03 was removed by spot grinding before testing. Suggest checking the heat-treat record for lot B-1047.

Equipment & conditions

HT-01 Rockwell hardness tester, bench · calibration due Mar 12, 2027

TH-02 Temperature / humidity logger · calibration due Jan 8, 2027

Daily verification on block TB-45 (45.2 HRC): mean 45.3, Verified

Lab temperature: 21.5 °C, OK (10–35 °C)

Deviations from the method: None

Results

Sample ID	Description / location	Readings	Average (HRC)	Spec	Result
2026-0142-01	Bracket, lot A-1031, flat face	41.2, 41.8, 41.5	**41.5**	38–44	**PASS**
2026-0142-02	Bracket, lot A-1031, flat face	40.6, 41.0, 40.4	**40.7**	38–44	**PASS**
2026-0142-03	Bracket, lot B-1047, flat face	36.9, 37.4, 37.1	**37.1**	38–44	**FAIL**

These results apply only to the items tested, as received.

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