

This Soremag sheet sets out the hardness specifications for **covered rollers**, in accordance with standard **ISO 6123/1-1982**, under which Soremag carries out its measurements. The table below maps the three scales used for rubber and polyurethane: **Shore A**, **P&J** (Pusey & Jones) and **Shore D**.

HARDNESS SCALES

The higher the **Shore A** (or Shore D) value, the harder the covering; conversely, the higher the **P&J** value, the softer the roller (top of the table = harder, bottom = softer).

Shore A	P&J (Pusey & Jones)	Shore D	Common reference*
100	0-3	70-100	 Golf ball
99	3-5	50-70	
97	5-10	50	
95	10-15	44	
93	15-20	40	
91	20-25	36	 Shopping-cart wheel
89	25-30	33	
87	30-35	30	
85	35-40	28	
83	40-45	26	
81	45-50	25	 Skateboard wheel
79	50-55	24	
77	55-60	–	
75	60-65	–	
73	65-70	–	
71	70-75	–	 Tire
69	75-80	–	
65	80-90	–	
61	90-100	–	
57	100-110	–	
53	110-120	–	 Stamp · eraser
50	120-130	–	
47	130-140	–	
44	140-150	–	
42	150-160	–	
40	160-170	–	 Pencil eraser
38	170-180	–	
35	180-200	–	
32	200-220	–	
29	220-240	–	

* Everyday references given for guidance only; the scales are not strictly convertible.

MEASUREMENT CONDITIONS

Covering thickness

Elastomer hardness is measured by indentation: covering thickness affects the reading. The standard sets minimums — at least **9 mm** up to 50 Shore A (or 40–100 P&J), and at least **6 mm** above 50 Shore A (or up to 40 P&J).

Temperature

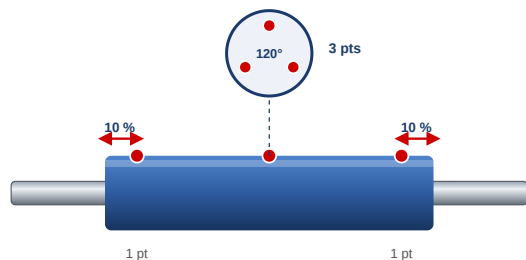
In the lab, testing is done at **23 ±2 °C**, with the roller brought to temperature beforehand. In service, since hardness varies with temperature, record it to compare results.

Number of measurements

Roller up to **2500 mm** of covered face: **5 points** (3 at 120° in the middle + 1 at each end, at 10% of the length). Above 2500 mm: **9 points** (3 at 120° in the middle and at each end).

Tolerance on nominal hardness

Shore A: multiples of 5 below 90, whole numbers above. **P&J**: multiples of 3 (0–15), 5 (15–100), 10 (100–200), 25 (>200). In Shore A/D, ISO 6123/1 allows **±5 degrees**.



≤ 2500 mm: 5 points - > 2500 mm: 9 points (3 × 120° at each end)

Permitted P&J deviations (ISO 6123/1)

P&J hardness	Tolerance
3–15	±3
16–49	±4
50–60	±5
61–70	±6
71–80	±7
81–90	±8
91–100	±9
101–150	±10

±5 degrees tolerance in Shore A / Shore D.



P&J reader
Bareiss HPE

OFFICIAL REX® DISTRIBUTOR



Shore A durometer (Type A)



DD-5 digital durometer



TBK calibration kit

Soremag is an **official Rex® distributor**: Shore A and Shore D durometers (analog and digital) and calibration kits.

KEY POINTS

Measurements per ISO 6123/1-1982, on the finished roller diameter. Scale correspondences are indicative (the scales are not strictly convertible). Non-contractual document — indicative values. Contact Soremag for any hardness specification.

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Roller hardness specifications — Rex® distributor
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