

The information in this sheet refers to standard ISO 6123/2-1982, which defines the roughness specifications of rubber-covered rollers.

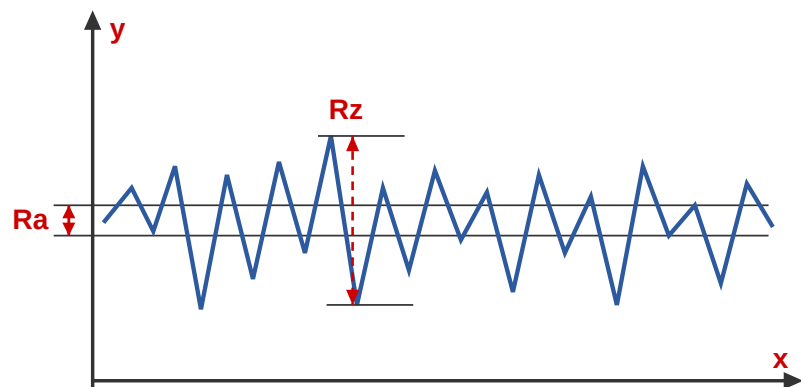
ROUGHNESS MEASUREMENT

The finish of rubber-covered rollers is expressed in **micrometers (µm)** — or in **microinches (µin)** in North America.

1 µm ≈ 39.37 µin.

Two standardized parameters:

- › **Ra** — arithmetic mean deviation of the profile from the mean line.
- › **Rz** — average height of irregularities over 5 points (peak-to-valley amplitude).



Roughness profile — Ra: deviation from the mean line · Rz: peak-to-valley amplitude.



Portable roughness tester
direct reading of Ra / Rz (µm or µin)

POSSIBLE FINISHES

1 Polishing

On soft elastomers the surface is velvety; on harder elastomers it is smooth. Grinding marks and scratches must not be visible to the naked eye; isolated grinding defects are allowed. *Note: not all elastomer grades can be polished.*

2 Fine grinding

Light grinding and feed marks are visible to the naked eye but are not perceptible when touching the roller.

3 Standard grinding

Very light grinding and progression traces are visible but barely perceptible when the roller is touched.

4 Turning

The surface is turned only, with the smallest possible lathe feed. Turning scratches are visible and perceptible to the touch.

5 As-is (raw)

The roller surface has no surface treatment or dressing: a canvas imprint as it comes from vulcanization, or polyurethane casting marks.

6 Special finish

This finish applies to any surface finish other than those described above, or outside the standards.

HARDNESS VS ROUGHNESS

The **same treatment** gives different roughness values depending on the **cover hardness** — and, to some extent, the **compound**. In each cell: **µm** (top) and **µin** (bottom).

Finish type	Cover hardness							
	Shore A < 50		50 to 70		71 to 99		≈ 100	
	P&J > 120		P&J 120 to 70		P&J 69 to 10		P&J 9 to 10	
	Ra	Rz	Ra	Rz	Ra	Rz	Ra	Rz
Polishing	5 197	31.5 1240	3.15 124	20 787	1.6 63	10 394	1 39	6.3 248
Fine grinding	6.3 248	40 1575	4 157	25 984	2.5 98	16 630	1.6 63	10 394
Standard grinding	10 394	63 2480	6.3 248	40 1575	4 157	25 984	2.5 98	16 630
Turned	* Not available *							
As-is	* Not available *							

Standardized roughness values — µm (top) / µin (bottom, microinches). "Turned" and "As-is": values not available (depending on compound and treatment).

SOREMAG EXPERTISE As specialists in roller **grinding** and **polishing**, with our equipment and know-how we routinely achieve surface finishes **significantly finer** than the standardized values in this table. Tell us about your specifications.