

# TECHNOPOROUS<sup>®</sup> Roller



TECHNOPOROUS Roller is a continuous micro-porous foam roller based on our original technology, excellent in various properties such as softness, resilience, water absorption and chemical resistance. In addition, TECHNOPOROUS Roller is made of alternative base polymers of polyolefin or polyurethane, so that the most suitable roller can be selected for diverse uses each. For example, a polyolefin roller is recommendable in a chemical resistance demanding use, and so is a polyurethane roller in an abrasion resistance demanding use.

## Applications of Rollers

- Squeegee Rollers/Minilabo, Printed Circuit Board, Lead-Frame, Film, etc.
- Washing Pads/Hard Disc, Glass Plate, Wafer, etc.
- Coating Rollers/Ink, Oil, Miscellaneous Coating
- Chemical Squeeze Rollers/Plating, Etching, etc.

## Standard Sizes

Outer Diameter	φ120mm or less
Thickness	30mm or less
Length	1500mm or less

Sizes larger than the above are available, as the case may be.

## General Properties

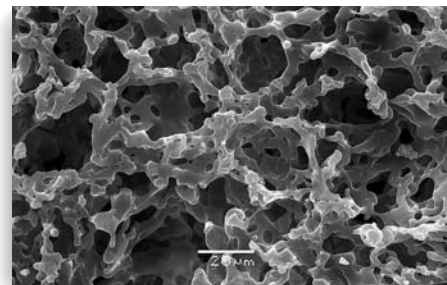
Material	U16W	L16W	L26W
	Polyurethane	Polyolefin	Polyolefin
Apparent Specific Gravity g/cm <sup>3</sup>	0.24	0.30	0.33
Tensile Strength kPa	590	360	540
Elongation %	330	420	330
Hardness ASKER C	10	9	18
Pore Size μm	60	60	60
Heat Resistance (Decay in Water) °C	100	60	60
Water Absorption sec	Instant	Instant	Instant

The above table is just for example. The properties are adjustable on demand.

## Chemical Resistance of Polyolefin Roller (L26W)

Chemicals	Tensile Strength (Retention %)		Elongation (Retention %)	
	2week	4week	2week	4week
47% Sulfuric Acid	96	107	105	93
60% Nitric Acid	93	87	88	84
36% Hydrochloric Acid	103	99	100	102
30% Acetic Acid	97	106	86	95
85% Phosphoric Acid	95	105	91	106
30% Sodium Hydrate	101	100	102	98
10% Ammonia	92	106	104	96
40% Iron(III) Chloride	100	102	93	96
30% Hydrogen Peroxide	96	106	102	103
available chlorine 5% Sodium Hypochlorite	97	103	104	98
5% Potassium Permanganate	106	94	98	68
Ethanol	98	103	94	102

- ①Retention %=Measured Value/Original ValueX100  
 ②The above measured values are not guaranteed.  
 ③Measurement is conducted at room temperature.



Photomicrograph

## Note

Besides material, hardness, pore size, product size, and shape, we can customize such as:

- Electrical conductive type
- Anti-bacterium/anti-mold type
- Low pollution type (eluted substance and particle)
- Flame retardant type
- Coiling prevention type

as per requirements in each use.