

TECHNOPOROUS[®] 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/Glass Plate, etc.
- Coating Rollers/Ink, Oil, Miscellaneous Coating
- Chemical Squeeze Rollers/Plating, Etching, OSP, etc.

Manufacturing Sizes

Outer Diameter	φ120mm or less
Thickness	38mm or less
Length	2500mm or less

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

Chemical Resistance of Polyolefin Roller(L16W)

Chemical Solution	2Weeks	4Weeks
47% Sulfuric Acid	○	○
60% Nitric Acid	×	×
36% Hydrochloric Acid	○	○
30% Acetic Acid	○	○
85% Phosphoric Acid	○	○
30% Sodium Hydroxide	○	○
10% Ammonia	○	○
40% Ferric Chloride	○	○
30% Hydrogen Peroxide	○	○
Sodium Hypochlorite (Available Chlorine 5%)	○	○
5% Potassium Permanganate	○	×
Ethanol	○	○
Isopropanol	○	○
Acetone	○	○
Toluene	×	×

Test Conditions

Immersion at room temperature for 2 and 4 weeks, followed by measurement of tensile strength and elongation.

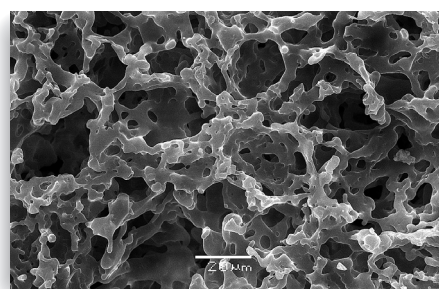
Evaluation Criteria

○: Both tensile strength and elongation retention ≥ 85%
 ×: Either tensile strength or elongation retention < 85%

General Properties

Material	U16W	L16W	L26WH
	Polyurethane	Polyolefin	Polyolefin
Apparent Specific Gravity g/cm ³	0.24	0.25	0.26
Tensile Strength N/cm ²	67	39	41
Elongation %	300	480	230
Hardness ASKER C	10	9	18
Pore Size μm	60	60	60
Heat Resistance °C	100	60	100
Water Absorption sec	Instant	Instant	Instant

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



Photomicrograph

Note

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

- Anti-bacterium/anti-mold type
- Shaftless type
- Grooving available
- Replaceable sponge type (shaft reusable)
- Coiling prevention type

as per requirements in each use.