

## Pebax® MV 1074 SP 01

TPA

### Pebax® MV 1074 SP 01 resin

Polyether block amide **Pebax® MV 1074 SP 01 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide.

**Pebax® MV 1074 SP 01 resin** is an inherently dissipative polymer and can be dry blended or compounded with an isolative polymer to lower the surface resistivity. This hydrophilic grade when extruded into either a thin film or laminated on to a substrate offers excellent permeability to moisture vapor while remaining waterproof.

This SP grade has been developed to be heat and UV resistant.

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Tensile Modulus	<b>97 / 80</b>	MPa	ISO 527-1/-2
Stress at 50% strain	<b>10 / 10</b>	MPa	ISO 527-1/-2
Strain at break	<b>&gt;50 / &gt;50</b>	%	ISO 527-1/-2
Charpy impact strength, +23°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	<b>N / -</b>	kJ/m <sup>2</sup>	ISO 179/1eA

<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Melting temperature, 10°C/min	<b>158 / *</b>	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	<b>-40 / *</b>	°C	ISO 11357-1/-2
Oxygen index	<b>19 / *</b>	%	ISO 4589-1/-2

<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Volume resistivity	<b>1.5E9 / 2.5E6</b>	Ohm*m	IEC 60093
Surface resistivity	<b>* / 3E8</b>	Ohm	IEC 60093
Electric strength	<b>5 / -</b>	kV/mm	IEC 60243-1

<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Water absorption	<b>48 / *</b>	%	Sim. to ISO 62
Humidity absorption	<b>1.4 / *</b>	%	Sim. to ISO 62
Density	<b>1070 / -</b>	kg/m <sup>3</sup>	ISO 1183

<b>Test specimen production</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Injection Molding, melt temperature	<b>220</b>	°C	ISO 294
Injection Molding, mold temperature	<b>30</b>	°C	ISO 10724
Injection Molding, injection velocity	<b>200</b>	mm/s	ISO 294
Injection Molding, pressure at hold	<b>30</b>	MPa	ISO 294

# Pebax® MV 1074 SP 01

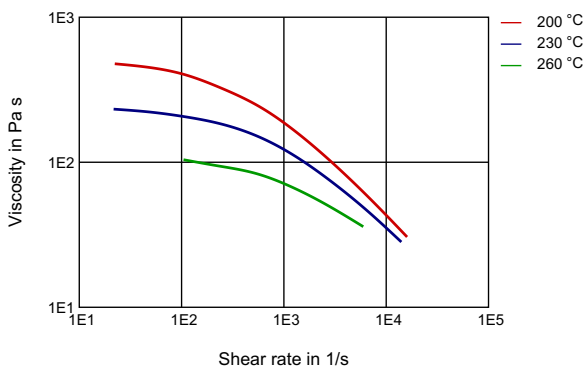
TPA

## Film Properties

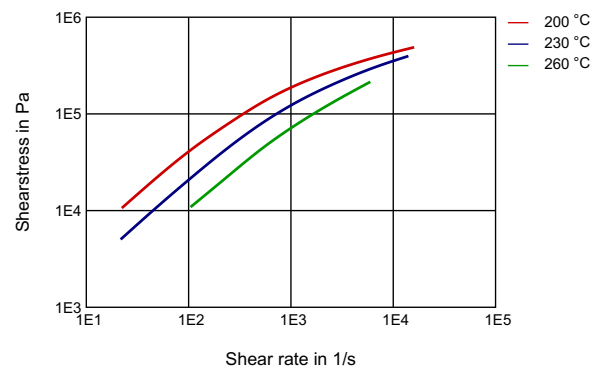
	dry / cond	Unit	Test Standard
Maximum stress, parallel	<b>32 / *</b>	MPa	ISO 527-3
Maximum stress, normal	<b>34 / *</b>	MPa	ISO 527-3
Maximum strain, parallel	<b>500 / *</b>	%	ISO 527-3
Maximum strain, normal	<b>700 / *</b>	%	ISO 527-3

## Diagrams

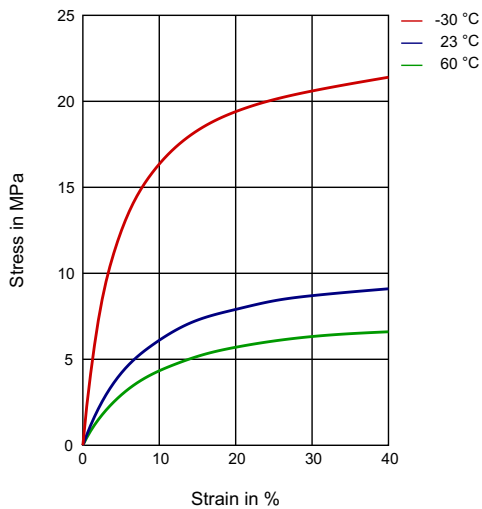
### Viscosity-shear rate



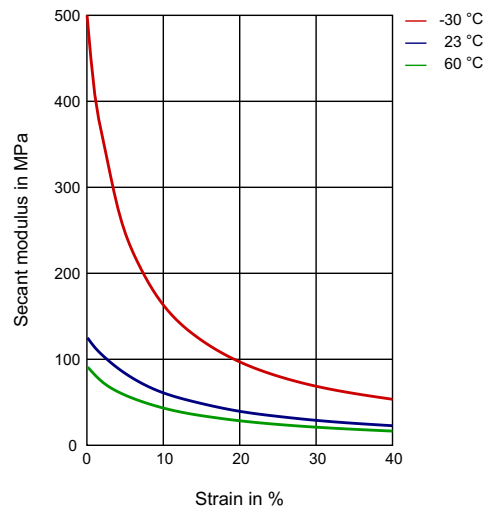
### Shearstress-shear rate



### Stress-strain



### Secant modulus-strain



## Characteristics

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## Pebax® MV 1074 SP 01

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### Processing

Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Transfer Molding, Casting, Thermoforming

### Delivery form

Pellets

### Special Characteristics

Increased electrical conductivity, Anti-static, Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

### Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

### Chemical Media Resistance

#### Acids

✓ Sulfuric Acid (38% by mass) (23°C)

#### Bases

✓ Sodium Hydroxide solution (1% by mass) (23°C)

#### Hydrocarbons

✓ iso-Octane (23°C)

#### Ketones

✓ Acetone (23°C)

#### Salt solutions

✓ Zinc Chloride solution (50% by mass) (23°C)

#### Other

✓ Water (23°C)