

# PEBAX<sup>®</sup>

## MH 1657

Polyether block amide **Pebax<sup>®</sup> MH 1657 resin** is a thermoplastic elastomer made of flexible polyether and rigid polyamide. **Pebax<sup>®</sup> MH 1657 resin** is an inherently dissipative polymer and can be dry blended or compounded with an isolative polymer to lower the surface resistivity of the final part.

This hydrophilic grade when extruded into either a thin film or laminated on to a substrate also offers excellent permeability to moisture vapor while remaining waterproof.

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
<b>RHEOLOGICAL PROPERTIES</b>			
Molding Shrinkage, parallel	0.7 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	0.7 / *	%	ISO 294-4, 2577
<b>MECHANICAL PROPERTIES</b>			
Tensile Modulus	90 / 80	MPa	ISO 527-1/-2
	13100 / 11600	psi	
Stress at 50% Strain	13 / 12	MPa	ISO 527-1/-2
	1890 / 1740	psi	
Strain at Break	>50 / >50	%	ISO 527-1/-2
Shore D Hardness, after 15 s	40 / *	-	ISO 868
Charpy Impact Strength, +23°C	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Impact Strength, -30°C	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	No Break / No Break	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL PROPERTIES</b>			
Melting Temperature, 10°C/min	204 / *	°C	ISO 11357-1/-3
Glass Transition Temperature, 10°C/min	-40 / *	°C	ISO 11357-1/-2
<b>ELECTRICAL PROPERTIES</b>			
Volume Resistivity	- / 2E7	Ohm* m	IEC 62631-3-1
Surface Resistivity	* / 1.5E9	Ohm	IEC 62631-3-2
<b>OTHER PROPERTIES</b>			
Water Absorption, 23°C, immersion, equilibrium	120 / *	%	ISO 62
Humidity Absorption, 23°C, RH50%, equilibrium	4.5 / *	%	ISO 62
Density	1140 / -	kg/m <sup>3</sup>	ISO 1183
	1.14 / -	g/cm <sup>3</sup>	

### MAIN APPLICATIONS:

- Breathable membranes
- Permanent antistatic additive

### PACKAGING:

This grade is delivered dried in sealed packaging (25 kg bags and 550 kg rigid containers) ready to be processed.

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Source: automatically generated TDS from Material Database on 12-08-2024

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## SHELF LIFE:

Two years from the delivery. For any use above this limit, please refer to our technical services.

## Injection molding process conditions:

- Typical melt temperature (Min / Recommended / Max): 230°C / 240°C / 260°C.
- Typical mold temperature: 25–60°C.
- Drying time and temperature (only necessary for bags/containers opened for more than two hours): 5-7 hours at 70-90°C.

## Extrusion process conditions:

- Typical melt temperature (Min / Recommended / Max): 230°C / 250°C / 280°C.
- Drying time and temperature (only necessary for bags/containers opened for more than two hours): 5-7 hours at 70-90°C.

<p><b>PROCESSING</b></p> <p>Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Transfer Molding, Casting, Thermoforming</p>	<p>Headquarters: Arkema France 420 rue d'Estienne d'Orves 92705 Colombes Cedex France T +33 (0)1 49 00 80 80 hpp.arkema.com</p>
<p><b>DELIVERY FORM</b></p> <p>Pellets</p>	
<p><b>SPECIAL CHARACTERISTICS</b></p> <p>Anti-Static, Heat Stabilized</p>	<p>Arkema Inc. – High Performance Polymers 900 First Avenue King of Prussia, PA 19406 Tel.: +1 610 205 7000 hpp.arkema.com</p>
<p><b>REGIONAL AVAILABILITY</b></p> <p>North America, Europe, Asia Pacific, South and Central America, Near East/Africa</p>	

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