

# DOWLEX™ 2342M

Polyethylene Resin

The Dow Chemical Company

## Message:

DOWLEX™ 2342M Polyethylene Resin is a high density ethylene/octene copolymer resin. It has a unique molecular structure with a linear polyethylene backbone and controlled octene side branches, which provides a combination of flexibility with very high toughness and stress crack resistance. A specified carbon black masterbatch is incorporated into the DOWLEX 2342M Polyethylene Resin during extrusion to arrive at a fully stabilised, homogeneous black sheet with excellent weldability. Sheetting thus produced meets the requirements of the Guidelines and Directives controlling general water barrier membranes such as the North Rhine Westfalia Guidelines or "Guideline for Plastic Membranes in Landfill sites" issued 7/92 from B.A.M. Berlin.

Processability: Typical extrusion temperature range for DOWLEX 2342M Polyethylene Resin is 190 to 230 °C. The resin contains processing stabilisers compatible with those in the Masterbatch added to guarantee short and long term processing, thermal and environmental stability including metal deactivators.

Applications:

Heavy sheeting.

General water barrier membranes.

General Information			
Forms	Pellets		
Processing Method	Sheet Extrusion		
Physical	Nominal Value	Unit	Test Method
Density			ISO 1183
-- <sup>1</sup>	0.944	g/cm <sup>3</sup>	
--	0.932	g/cm <sup>3</sup>	
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	0.85	g/10 min	
190°C/5.0 kg	2.6	g/10 min	
Environmental Stress-Cracking Resistance (20°C, 2.00 mm, 10% AntaroX, Compression Molded)	> 15000	hr	ASTM D1693A
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, 2.00 mm, Compression Molded)	55		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			
Yield <sup>2</sup>	18.0	MPa	ISO 527-2
Yield, 2.00 mm, Compression Molded <sup>3</sup>	16.0	MPa	ISO 527-2/50
Break <sup>4</sup>	> 30.0	MPa	ISO 527-2
Break, 2.00 mm, Compression Molded <sup>5</sup>	> 30.0	MPa	ISO 527-2/50
Tensile Strain			
Yield <sup>6</sup>	12	%	ISO 527-2
Yield, 2.00 mm, Compression Molded <sup>7</sup>	14	%	ISO 527-2/50
Break <sup>8</sup>	> 800	%	ISO 527-2
Break, 2.00 mm, Compression Molded <sup>9</sup>	> 800	%	ISO 527-2/50

Flexural Modulus - 2% Secant (2.00 mm, Compression Molded)	550	MPa	ISO 178
Tear Resistance <sup>10</sup>	> 750	N	DIN 53356
Oxidation Induction Time (210°C)	> 30	min	DIN EN 728
Films	Nominal Value	Unit	Test Method
Film Puncture Force <sup>11</sup>	> 7500	N	DIN 54307
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength <sup>12</sup>			ISO 180
-40°C, Compression Molded	65	kJ/m <sup>2</sup>	
23°C, Compression Molded	No Break		
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	117	°C	ISO 306/A120
NOTE			
1.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.		
2.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.		
3.	Data are valid for MD and CD direction.		
4.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.		
5.	Data are valid for MD and CD direction.		
6.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.		
7.	Data are valid for MD and CD direction.		

8.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.
9.	Data are valid for MD and CD direction.
10.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.
11.	Black 2.5 mm thick sheet extruded from DOWLEX 2342M Polyethylene resin with a specified masterbatch conforming to DIN 16776 as: "PE, EACK 35T022 or D006". Carbon black content: 2.0-2.2%.
12.	2 mm thick

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#### Recommended distributors for this material

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