

HMWPE 55100



4028 - 101 Street | Edmonton | Alberta | Canada | T6E 0A5

Sheet Extrusion Grade

High-Load Melt Index 11.5 Density 0.950

Applications

HMWDE 5100 is especially designed for large-part blow molding of durable goods and deep-draw sheet extrusion/ thermoforming applications. HMWDE 5100 exhibits excellent impact resistance and environmental stress crack resistance.

Regulatory Status

HMWDE 5100 meets the requirements of the Food and Drug Administration regulation 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food." Specific limitations or conditions of use may apply. Contact your Orion sales representative for more information.

Processing Techniques

Specific recommendations for processing HMWDE 5100 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Orion sales or technical service representative.

Physical Properties

Property	Nominal Value	Units	ASTM Test Method
High Load Melt Index (HLMI)	11.5	g/10 min	D 1238
Density	0.950	g/cc	D 1505
Tensile Strength @ Yield	3,700	psi	D 638
Elongation @ Break	>800	%	D 638
Flexural Modulus	165,000	psi	D 790
Tensile Impact	>200	ft-lb/in	D 1822
Low Temperature Brittleness, F ₅₀	<-76	°C	D 746
Heat Deflection Temperature @ 66 psi	73	°C	D 648
Vicat Softening Point	122	°C	D 1525
Hardness, Shore D	65		D 2240
Environmental Stress Crack Resistance, F ₅₀	>1,000	hrs	D 1693
	>1,000		D 2561