

Alathon®

L 5005

High Density Polyethylene

HMW Film Grade

Melt Index 0.057 Density 0.949

Applications

ALATHON L 5005 is a high molecular weight high density copolymer that provides broad bimodal molecular weight distribution, high stiffness and good heat seal response and strength. Typical applications include merchandise bags, grocery sacks, trash can liners, produce bags and roll stock.

Certification

L 5005 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 Equistar sales representative for more information.

Processing Techniques

Specific recommendations for processing L 5005 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative.

Physical Properties

| Property | Nominal Value | Units | ASTM Test Method |
|-----------------------------------|-------------------|------------|------------------|
| Melt Index | 0.057 | g/10 min | D 1238 |
| Density | 0.949 | g/cc | D 1505 |
| Total Energy Dart Drop | 2.05 | ft-lbs/mil | D 3420 |
| Elmendorf Tear Strength, MD (TD) | 14 (35) | g | D 1922 |
| Tensile Strength @ Yield, MD (TD) | 3,800 (3,400) | psi | D 882 |
| Tensile Strength @ Break, MD (TD) | 8,500 (5,000) | psi | D 822 |
| Elongation @ Break, MD (TD) | 300 (420) | % | D 882 |
| Secant Modulus, MD (TD) | 115,000 (140,000) | psi | D 882 |

Typical Process Condition Ranges:

BUR=3.5-4.5:1; Neck Height=6-9 Die Diameters; Die Gap (nominal), in.=0.040-0.050; Tower Height=Relatively Short; Output, Lb/Hr/In of Die Circumference=10-12; Melt Temperature - 390-420°F (199-216°C)

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