# Prixene® EB004E22

### Low Density Polyethylene

#### **POLYMAT**

#### Message:

General Information

Prixene®EB004E22 Low Density Polyethylene Resin can be readily extruded using conventional blown film techniques utilizing melt temperatures. This resin, when properly fabricated, shows an excellent combination of processability, stiffness and physical properties. This product does not contain slip nor antiblock additives.

The features presented are good processability, high impact resistance, low density, good tenacity, and good complies with FDA. The product form is in pellets. The material fulfills the FDA regulation title 21.CFR177.1520 (c) 2.2.

Features         Food Contact Acceptable           Good Impact Resistance         Good Processability           High Rigidity         High Rigidity           Agency Ratings         FDA 21 CFR 177.1520(c) 2.2           Forms         Pellets           Processing Method         Blow Molding           Film Extrusion         Film Extrusion           Physical         Nominal Value         Unit         Test Method           Meth Mass-Flow Rate (MFR) (190°C/2.16*         Nominal Value         July Common AsTim D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         July Common AsTim D1238         ASTIM D1238           Films         Nominal Value         Unit         Test Method           Secant MOLUlus         July Common AsTim D1238         ASTIM D1238           Films         Nominal Value         Unit         Test Method           1% Secant, MD: 51 μm         241         MPa         ASTIM D882           Tensile Strongth         13.1         MPa         ASTIM D882           MD: Yield,51 μm         13.8         MPa         ASTIM D882           TD: 19 Reak, 51 μm         21.4         MPa         ASTIM D882           TD: 19 Reak, 51 μm         200 <th></th> <th></th> <th></th> <th></th>				
Good Processability   High Rigidity   Low Density	Features	Food Contact Acceptable		
High Rigidity   Low Density				
Agency Ratings         FDA 21 CFR 177.1520(c) 2.2           Forms         Pellets           Processing Method         Blow Molding Film Extrusion           Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Flims         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D1828         ASTM D82           1% Secant, MD : 51 μm         241         MPa           1% Secant, TD : 51 μm         241         MPa           Tensile Strength         MPa         ASTM D882           MD : Yield,51 μm         13.1         MPa           ID : Yield,51 μm         13.8         MPa           ID : Sreak, 51 μm         25.5         MPa           TD : Break, 51 μm         200         %           TD : Break, 51 μm         200         %           ID : Break, 51 μm         500         %				
Agency Ratings         FDA 21 CFR 177.1520(c) 2.2           Forms         Pellets           Processing Method         Blow Molding Film Extrusion           Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D823         ASTM D823           1% Secant, MD:51 µm         241         MPa           1% Secant, TD:51 µm         241         MPa           MD: Yield,51 µm         13.1         MPa           MD: Streak, 51 µm         13.8         MPa           MD: Break, 51 µm         25.5         MPa           TD: Break, 51 µm         21.4         MPa           TD: Break, 51 µm         200         %           MD: Break, 51 µm         500         %           TD: Break, 51 µm         500         %           Dat Drop Impact (51 µm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method		High Rigidity		
Forms         Pellets           Processing Method         Blow Molding Fillm Extrusion           Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm²         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D882         ASTM D882           1% Secant, MD : 51 μm         241         MPa           1% Secant, TD : 51 μm         241         MPa           Testle Strength         ASTM D882           MD : Yield, 51 μm         13.1         MPa           TD : Yield, 51 μm         13.8         MPa           MD : Break, 51 μm         25.5         MPa           TD : Break, 51 μm         21.4         MPa           TD : Break, 51 μm         200         %           MD : Break, 51 μm         200         %           TD : Break, 51 μm         200         %		Low Density		
Forms         Pellets           Processing Method         Blow Molding Fillm Extrusion           Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm²         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D882         ASTM D882           1% Secant, MD : 51 μm         241         MPa           1% Secant, TD : 51 μm         241         MPa           Testle Strength         ASTM D882           MD : Yield, 51 μm         13.1         MPa           TD : Yield, 51 μm         13.8         MPa           MD : Break, 51 μm         25.5         MPa           TD : Break, 51 μm         21.4         MPa           TD : Break, 51 μm         200         %           MD : Break, 51 μm         200         %           TD : Break, 51 μm         200         %				
Processing Method         Blow Molding Film Extrusion           Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D882         ASTM D882           1% Secant, MD: 51 μm         241         MPa           1% Secant, TD: 51 μm         241         MPa           Tensile Strength         ASTM D882           MD: Yield,51 μm         13.1         MPa           TD: Yield,51 μm         13.8         MPa           MD: Break, 51 μm         25.5         MPa           TD: Break, 51 μm         21.4         MPa           Tensile Blongation         ASTM D882           MD: Break, 51 μm         200         %           TD: Break, 51 μm         500         %           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           ASTM D2457	Agency Ratings	FDA 21 CFR 177.1520(c) 2.2		
Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D882         ASTM D882           1% Secant, MD: 51 μm         241         MPa           1% Secant, TD: 51 μm         241         MPa           Tensile Strength         ASTM D882           MD: Yield,51 μm         13.1         MPa           TD: Yield,51 μm         13.8         MPa           MD: Break, 51 μm         25.5         MPa           TD: Break, 51 μm         21.4         MPa           Tensile Elongation         21.4         MPa           MD: Break, 51 μm         200         %           TD: Break, 51 μm         500         %           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         Unit         ASTM D2457	Forms	Pellets		
Physical         Nominal Value         Unit         Test Method           Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         241         MPa         ASTM D882           1% Secant, MD: 51 µm         241         MPa         ASTM D882           MD: Yield,51 µm         13.1         MPa         ASTM D882           MD: Yield,51 µm         13.8         MPa         ■           MD: Break, 51 µm         25.5         MPa         ■           TD: Break, 51 µm         21.4         MPa         ■           TD: Break, 51 µm         200         %         ■           MD: Break, 51 µm         500         %         ■           Dart Drop Impact (51 µm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 µm, Blown Film)         104         ■         ASTM D2457	Processing Method	Blow Molding		
Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         41         MPa         ASTM D882           1% Secant, TD: 51 μm         241         MPa         ASTM D882           MD: Secant, TD: 51 μm         13.1         MPa         ASTM D882           MD: Yield,51 μm         13.8         MPa         ASTM D882           MD: Break, 51 μm         25.5         MPa         ASTM D882           TD: Break, 51 μm         21.4         MPa         ASTM D882           MD: Break, 51 μm         200         %         ASTM D882           MD: Break, 51 μm         200         %         ASTM D882           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         Unit         ASTM D2457		Film Extrusion		
Density         0.925         g/cm³         ASTM D1505           Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         421         MPa           1% Secant, TD: 51 μm         241         MPa           1% Secant, TD: 51 μm         241         MPa           4mD: Secant, TD: 51 μm         13.1         MPa           4mD: Yield,51 μm         13.8         MPa           4mD: Pield,51 μm         13.8         MPa           4mD: Break, 51 μm         25.5         MPa           4mD: Break, 51 μm         21.4         MPa           4mD: Break, 51 μm         200         %           4mD: Break, 51 μm         500         %           5math D1709A         MPa           4mD: Break, 51 μm         500         %           5math D1709A				
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D882           1% Secant, MD: 51 μm         241         MPa           1% Secant, TD: 51 μm         241         MPa           Tensile Strength         ASTM D882           MD: Yield,51 μm         13.1         MPa           TD: Yield,51 μm         13.8         MPa           MD: Break, 51 μm         25.5         MPa           TD: Break, 51 μm         21.4         MPa           Tensile Elongation         %         ASTM D882           MD: Break, 51 μm         200         %           TD: Break, 51 μm         500         %           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         Unit         ASTM D2457	Physical	Nominal Value	Unit	Test Method
kg)         0.40         g/10 min         ASTM D1238           Films         Nominal Value         Unit         Test Method           Secant Modulus         45TM D882         ASTM D882           1% Secant, MD : 51 µm         241         MPa           1% Secant, TD : 51 µm         241         MPa           Tensile Strength         ASTM D882           MD : Yield,51 µm         13.1         MPa           TD : Yield,51 µm         13.8         MPa           MD : Break, 51 µm         25.5         MPa           TD : Break, 51 µm         21.4         MPa           MD : Break, 51 µm         200         %           MD : Break, 51 µm         500         %           TD : Break, 51 µm         500         %           Dart Drop Impact (51 µm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 µm, Blown Film)         104         —         ASTM D2457	Density	0.925	g/cm³	ASTM D1505
Films         Nominal Value         Unit         Test Method           Secant Modulus         ASTM D882           1% Secant, MD: 51 μm         241         MPa           1% Secant, TD: 51 μm         241         MPa           Tensile Strength         ASTM D882           MD: Yield,51 μm         13.1         MPa           TD: Yield,51 μm         13.8         MPa           MD: Break, 51 μm         25.5         MPa           TD: Break, 51 μm         21.4         MPa           Tensile Elongation         ASTM D882           MD: Break, 51 μm         200         %           TD: Break, 51 μm         500         %           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         Unit         ASTM D2457	Melt Mass-Flow Rate (MFR) (190°C/2.16			
Secant Modulus         ASTM D882           1% Secant, MD: 51 µm         241         MPa         Fensile Strength         ASTM D882           MD: Yield, 51 µm         13.1         MPa         Fensile Strength         ASTM D882           MD: Yield, 51 µm         13.8         MPa         Fensile Strength         Fensile Strength         MPa           MD: Break, 51 µm         25.5         MPa         ASTM D882           MD: Break, 51 µm         200         %         ASTM D882           MD: Break, 51 µm         500         %         Colspan="2">Colspan="2">Strength         ASTM D1709A           Dart Drop Impact (51 µm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 µm, Blown Film)         104         Test Method	kg)	0.40	g/10 min	ASTM D1238
1% Secant, MD : 51 μm       241       MPa         1% Secant, TD : 51 μm       241       MPa         Tensile Strength       ASTM D882         MD : Yield,51 μm       13.1       MPa         TD : Yield,51 μm       13.8       MPa         MD : Break, 51 μm       25.5       MPa         TD : Break, 51 μm       21.4       MPa         Tensile Elongation       %       ASTM D882         MD : Break, 51 μm       200       %         TD : Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       -       ASTM D2457	Films	Nominal Value	Unit	Test Method
1% Secant, TD: 51 μm       241       MPa         Tensile Strength       ASTM D882         MD: Yield,51 μm       13.1       MPa         MD: Yield,51 μm       13.8       MPa         MD: Break, 51 μm       25.5       MPa         TD: Break, 51 μm       21.4       MPa         ASTM D882         MD: Break, 51 μm       200       %         TD: Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       Unit       ASTM D2457	Secant Modulus			ASTM D882
Tensile Strength         ASTM D882           MD : Yield,51 μm         13.1         MPa           TD : Yield,51 μm         13.8         MPa           MD : Break, 51 μm         25.5         MPa           TD : Break, 51 μm         21.4         MPa           MD : Break, 51 μm         200         %           MD : Break, 51 μm         500         %           TD : Break, 51 μm         500         %           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         -         ASTM D2457	1% Secant, MD : 51 μm	241	MPa	
MD : Yield,51 μm       13.1       MPa         TD : Yield,51 μm       13.8       MPa         MD : Break, 51 μm       25.5       MPa         TD : Break, 51 μm       21.4       MPa         ASTM D882         MD : Break, 51 μm       200       %         TD : Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       Unit       ASTM D2457	1% Secant, TD : 51 μm	241	MPa	
TD : Yield,51 μm       13.8       MPa         MD : Break, 51 μm       25.5       MPa         TD : Break, 51 μm       21.4       MPa         MD : Break, 51 μm       200       %         TD : Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       -       ASTM D2457	Tensile Strength			ASTM D882
MD: Break, 51 μm       25.5       MPa         TD: Break, 51 μm       21.4       MPa         Tensile Elongation       ASTM D882         MD: Break, 51 μm       200       %         TD: Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       -       ASTM D2457	MD : Yield,51 µm	13.1	MPa	
TD: Break, 51 μm       21.4       MPa         Tensile Elongation       ASTM D882         MD: Break, 51 μm       200       %         TD: Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       ASTM D2457	TD : Yield,51 µm	13.8	MPa	
Tensile Elongation           MD: Break, 51 μm         200         %           TD: Break, 51 μm         500         %           Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         ASTM D2457	MD : Break, 51 μm	25.5	MPa	
MD : Break, 51 μm 200 %  TD : Break, 51 μm 500 %  Dart Drop Impact (51 μm) 110 g ASTM D1709A  Optical Nominal Value Unit Test Method  Gloss (60°, 50.8 μm, Blown Film) 104  ASTM D2457	TD : Break, 51 μm	21.4	MPa	
TD : Break, 51 μm       500       %         Dart Drop Impact (51 μm)       110       g       ASTM D1709A         Optical       Nominal Value       Unit       Test Method         Gloss (60°, 50.8 μm, Blown Film)       104       ASTM D2457	Tensile Elongation			ASTM D882
Dart Drop Impact (51 μm)         110         g         ASTM D1709A           Optical         Nominal Value         Unit         Test Method           Gloss (60°, 50.8 μm, Blown Film)         104         ASTM D2457	MD : Break, 51 µm	200	%	
Optical     Nominal Value     Unit     Test Method       Gloss (60°, 50.8 μm, Blown Film)     104     ASTM D2457	TD : Break, 51 µm	500	%	
Gloss (60°, 50.8 μm, Blown Film) 104 ASTM D2457	Dart Drop Impact (51 µm)	110	g	ASTM D1709A
	Optical	Nominal Value	Unit	Test Method
Haze (50.8 μm) 6.5 % ASTM D1003	Gloss (60°, 50.8 µm, Blown Film)	104		ASTM D2457
	Haze (50.8 µm)	6.5	%	ASTM D1003

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