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Advancing Possible

Plexar Tie-Layer Resins

Advancing high-tech resins for adhesion

As the first company to develop tie-layer adhesives in the North America market more than 35 years ago, LyondellBasell's *Plexar* resins are one of the leading tie-layer adhesives produced in the world and provide excellent adhesion to a wide range of materials. Our innovative *Plexar* resins bond dissimilar polymers, primarily in multi-layer, coextruded structures. *Plexar* tie-layer adhesives are marketed globally by MSI Technology, LLC.
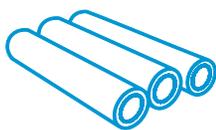
Advancing Your Applications

LyondellBasell's Cincinnati Technology Center is staffed with professionals skilled in multi-layer and tie-layer development. The center houses the most advanced coextrusion, analytical and physical testing equipment, as well as polymer development technology in North America. In addition, our global distributor MSI Technology, LLC conducts research and development on tie-layer applications at their facility in Arlington Heights, IL, U.S.A.

Some Typical Applications

Blow molding   *Pipe*   *Film*   *Food packaging*   *Wire and cable*

Plexar Tie-Layer Resins

Product	MI (g/10min.)	Density (g/cm3)	Description	Typical Application	Benefits
Plexar 1000 Series EVA and LDPE					
PX1007	3.1	0.931	Adhesion to polyamide and EVOH	Used in coextrusion film and other flexible packaging applications	▮ Excellent balance of adhesion and clarity
PX1164	3.8	0.931	High adhesion to polyamide, EVOH, PET, PS		▮ Bond to wide variety of substrates
Plexar 2000 Series HDPE					
PX2246	0.5	0.951	Adhesion to polyamide, better MVTR	High top-load strength in blow molded coex bottles including liquid food products	▮ Based on advanced catalyst technology
PX2250	6.0	0.943	Adhesion to metal surfaces	Metal bonding for nail tapes, signage, architectural panels and truck panels	▮ Excellent adhesion to PE, PA and EVOH
PX2600	6.0	0.927	Adhesion to metal surfaces		▮ Excellent impact strength and top load strength
PX2413	5.5	0.920	Adhesion to metal surfaces		▮ Outstanding thermal stability and processability
Plexar 3000 Series LLDPE					
PX3184	2.1	0.920	Higher adhesion to EVOH with low MI	Used in coextrusion for flexible barrier packaging applications, rigid packaging applications (blow molding, sheet and industrial products), and multi-layer pipe applications	▮ Excellent toughness and outstanding adhesion performance
PX3940	1.4	0.910	High adhesion to PET polyester and EVOH		▮ Excellent processability and product consistency
PX3216	2.2	0.910	High adhesion in inner-layer PEX pipe		▮ Superior film strength and dimensional stability
PX3227	1.7	0.913	Higher adhesion to EVOH		
PX3838	1.8	0.910	High adhesion to EVOH and PP for hot-fill and coffee pods		
PX3236	2.0	0.922	High adhesion to polyamide and EVOH		
PX3747	2.0	0.918	High-performance tie-layer resin		
PX3610	2.1	0.918	Adhesion to polyamide, high clarity film		
PX3060	2.2	0.924	High adhesion to EVOH		
PX3243	4.5	0.927	High adhesion to polyamide and EVOH in cast films		
Plexar 5000 Series Select Performance					
PX5400	3.0	0.933	EVOH, PS, HIPS	Used in a wide range of extrusion applications including coextrusion coatings, laminations, sheet and thermoforming and multi-layer composite pipe (MLCP) applications	▮ High adhesion performance in demanding end-use applications
PX5125	6.0	0.924	High-performance extrusion coating resin		▮ Excellent processability allowing for increased line speeds
PX5335	5.7	0.921	Outer layer PEX pipe		▮ Improved drawdown and reduced neck-in properties
PX9125	6.1	0.922	High-performance extrusion coating resin		▮ Excellent adhesion to PE, PA and EVOH
Plexar 6000 Series Polypropylene					
PX6002	2.7	0.892	Higher adhesion to EVOH	Used in rigid packaging applications, such as blow molded bottles for hot-fill and sheet, and thermoformed container applications	▮ Based on patented technology
PX6006	4.8	0.892	Highest adhesion to EVOH in films		▮ Outstanding adhesion performance
PX6005	5.4	0.892	High stiffness in EVOH / PA coex bottles		▮ Excellent choice for PP-based coextruded structures requiring good heat stability in retort applications.

ABOUT US

LyondellBasell (NYSE: LYB) is one of the largest plastics, chemicals and refining companies in the world. Driven by its 13,400 employees around the globe, LyondellBasell produces materials and products that are key to advancing solutions to modern challenges like enhancing food safety through lightweight and flexible packaging, protecting the purity of water supplies through stronger and more versatile pipes, and improving the safety, comfort and fuel efficiency of many of the cars and trucks on the road. LyondellBasell sells products into approximately 100 countries and is the world's largest licensor of polyolefin technologies. In 2018, LyondellBasell was named to Fortune Magazine's list of the "World's Most Admired Companies."

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