

# Solutions ...

## Beverage Caps and Closures

March 2011



### Our company

INEOS Olefins & Polymers, one of the world's largest polyolefin producers, provides customers with quality products and services from facilities that meet the highest Health, Safety, Security and Environmental (HSSE) standards. We are challenging ourselves to change the way our industry does business, and we are unleashing the potential of our people to provide our customers on-target products, on-time delivery, service you can count on.

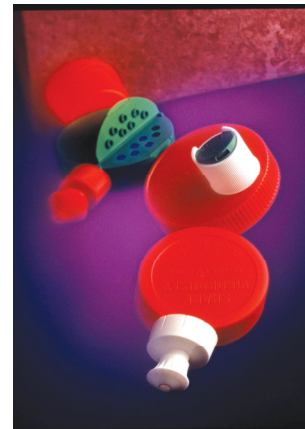


### Our products

Our industry leading polymers are transformed into a wide variety of articles, including food and drink containers, caps and closures, film, pipe, and a variety of other applications.

### Thermoplastics for beverage caps and closures

INEOS Olefins & Polymers is recognized as the market leader in the production of thermoplastic resins for the beverage industry. Our specially designed resins are used extensively by leading caps and closures producers in the packaging of sparkling and still water, juice, sport drinks and carbonated soft drinks.



INEOS Olefins & Polymers' line of resins includes polypropylene and high density polyethylene specially designed for use in injection as well as compression molded closures. Using our state-of-the-art manufacturing facilities, we produce HDPE resins that impart no taste or odor to the product, an essential quality for still water and other beverage packaging. These organoleptic grades are available in a broad range of melt index and densities for optimum performance selection.

Contact a representative at INEOS Olefins & Polymers to discuss the product that best fits your application.

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**Olefins & Polymers USA**

# Product offerings

Polypropylene				
Material	MFI <sup>1</sup>	Flex Mod <sup>2</sup>	Izod (RT) <sup>3</sup>	Features/special characteristics
L06Z-00	6.0	207	2.6	Closures molded from this resin exhibit a superior balance of stiffness and stress crack resistance. This resin is nucleated for faster molding cycles and contains both an antistat and lubrication package for improved performance during bottling and lowers unscrewing torques.
Polyethylene				
Material	MI <sup>4</sup>	Density <sup>5</sup>		Features/special characteristics
B4020N1331	2.2	0.953		Broad molecular weight HDPE resin for both injection and compression molded caps. Increased crack resistance for carbonated soft drink packaging but equally suited for still water applications. This resin is organoleptically certified.
B4020N1332	1.9	0.953		Broad molecular weight HDPE resin for both injection and compression molded caps. Increased crack resistance for carbonated soft drink packaging. Contains lubrication package for improved bottling and lower removal torques. This resin is organoleptically certified.
B4020N1333	1.9	0.953		Broad molecular weight HDPE resin for both injection and compression molded caps. Increased crack resistance for carbonated soft drink packaging. Contains a light lubrication package for improved bottling and lower removal torques. This resin is organoleptically certified.
J50-200-178	2.0	0.952		Organoleptically certified resin for compression and injection molding. Offers enhanced crack resistance for carbonated beverages as well as still water packaging.
J50-1000-178	11.0	0.951		Organoleptically certified resin for injection molding applications. This resin is primarily used for making closures for still water applications. Closures from this resin can also be used for packaging juices and sports drinks.
J50-1000-181	11.0	0.951		Organoleptically certified resin for injection molding applications. This resin is primarily used for making closures for still water applications. Closures from this resin can also be used for packaging juices and sports drinks. Contains a lubrication package for improved performance during bottling and lower removal torques.
J50-1000-187	11.0	0.951		Organoleptically certified resin for injection molding applications. This resin is primarily used for making closures for still water applications. Closures from this resin can also be used for packaging juices and sports drinks. Contains a low taste lubrication package for improved performance during bottling and lower removal torques.
J50-2000-119	20.0	0.953		A higher flow HDPE resin typically used for the injection molding of closures for water, juice and milk packaging.
J60-800-178	8.0	0.961		Organoleptically certified HDPE homopolymer for injection molding applications. This resin is primarily used for making closures for still water applications. Closures from this resin can also be used for packaging juices and sports drinks.

<sup>1</sup> g/10 min ASTM D 1238 (230/2.16)

<sup>2</sup> kpsi ASTM D 638 (1% secant, 0.05 in/min)

<sup>3</sup> ft-lbf/in

<sup>4</sup> g/10 min ASTM D 1238 (190/2.16)

<sup>5</sup> g/cc

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