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Total Petrochemicals Creates New Metallocene PP Resin Clarified with Milliken's Millad[®] NX8000 for Thermoforming

SPARTANBURG, S.C. – July 5, 2010 – Total Petrochemicals USA, Inc., a leading polypropylene (PP) producer headquartered in Houston, Texas, and Milliken Chemical, a division of Milliken & Company, collaborated on a new metallocene PP resin clarified with Milliken's Millad[®] NX8000 technology. The new material, Total Petrochemicals' Lumicene[®] M3382MZ polypropylene, produces thermoformed parts with superior clarity and gloss and excellent side wall stiffness. The resin is ideal for deli containers, drinking cups, lids, domes and food service trays when high clarity and stiffness are important. The combination of Milliken's high-performance clarifier and Total's proprietary metallocene technology will help drive expanded use of low-density PP as a cost-effective and environmentally responsible replacement for other clear plastic materials.

Lumicene M3382MZ is an extremely clean resin that features ultra-low extractables, improved taste and odor characteristics, and complies with U.S. Food and Drug Administration (FDA) regulations regarding food contact. During processing, this resin delivers optimum thermal stability for superior color, clarity and processability. An additional processing benefit provided by combining Total's Lumicene resin technology with Milliken's Millad NX8000 clarifier is reduced smoke and plate-out in thermoforming applications such as clear cold drink cups and lids.



Total Petrochemicals encompasses petrochemicals activities of Total, the fourth largest oil company worldwide. Its business includes base petrochemicals from steam crackers and certain refinery processing plants – olefins (ethylene, propylene), C₄ fractions and aromatics (benzene, toluene, xylenes and styrene) – as well as the commodity polymers they derived from (polyethylene, polypropylene, polystyrene and elastomers). Total Petrochemicals employs 7,500 people in Europe, the United States, the Middle East and Asia. Its products are used in many consumer and industrial markets, including Packaging, Construction and Automotive.

“Our work with Milliken has enabled Total to create a value-added PP resin that delivers outstanding clarity for thermoformed cups, containers and packaging,” said Mike Musgrave, market manager, Total Petrochemicals. “Increased clarity, together with metallocene PP’s other desirable properties, makes this new grade a better solution than traditional materials for a range of thermoformed applications. It delivers the spectacular appearance and excellent performance consumers expect.”

“Many trends are driving the need for replacement of traditional clear packaging materials,” said Brian Burkhart, global market manager, Milliken Chemical. “Along with economic pressures to reduce costs throughout the production cycle, manufacturers are listening to consumer demands for sustainability – less material, easier recyclability – as well as safety and quality. Total’s metallocene PP resin clarified with Millad NX8000 agent offers a new and improved choice for clear containers and packaging.”

In the past, PP could not compete with the high clarity of polystyrene (PS), polyethylene terephthalate (PET) and other materials. Milliken’s Millad NX8000 clarifying agent provides a reduction in haze vs. the current industry standard. The combination of these two advanced technologies produces excellent aesthetics for thermoformed PP in both deep- and shallow-draw packaging, including a high level of gloss. The highly clarified metallocene PP can successfully compete with traditional materials because it offers lower density for reduced cost and lower resource usage, and fast and easy processing for high productivity. Millad NX8000 also delivers performance benefits including increased material strength and rigidity, and improved heat and chemical resistance.

Clarified metallocene PP supports environmental goals in two ways: with its lower density, polypropylene requires less resin than other clear polymers, reducing the amount of non-renewable resources used in manufacturing; and it is more easily recycled in the existing waste management infrastructure.

About Total Petrochemicals USA, Inc.

Total Petrochemicals USA, Inc. is headquartered in Houston, Texas, and produces polypropylene, polyethylene, polystyrene, styrene, base chemicals and transportation fuels. The company employs about 1,700 people in the United States and has manufacturing facilities in Texas and Louisiana as well as a research and technology facility in La Porte, Texas, and a refinery in Port Arthur, Texas.

About Milliken Chemical

Based in Spartanburg, S.C., USA, Milliken & Company is one of the world’s largest privately held textile and chemical corporations. Milliken Chemical, a division of Milliken & Company, specializes in developing and producing additives for plastics, textiles, fibers, and other manufacturing processes. Milliken Chemical has application and development centers around the world to support their customers.

For more information about Milliken Chemical, please visit www.millikenchemical.com and www.clearpp.com.

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Millad is a registered trademark of Milliken & Company.
Lumicene is a registered trademark of Total Petrochemicals.

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PHOTO: Clear Plastic Drinking Cups Made With Total Petrochemicals' Lumicene® M3382MZ Polypropylene, Clarified With Milliken's Millad® NX8000

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High resolution photography is available by contacting Amy Godfrey at agodfrey@ahminc.com.