

Association of Plastic Recyclers 1001 G Street, NW Suite 500 Washington DC 20001

www.plasticsrecycling.org

June 16, 2016

Mr. Thomas Busard Chief Procurement Officer Plastipak Packaging, Inc. 41605 Ann Arbor Rd. Plymouth, MI 48170

Dear Mr. Busard:

APR, the Association of Plastic Recyclers, is pleased to recognize Plastipak Packaging's four color (white, cyan, magenta, yellow, and black) Direct Object Printing™ technology with up to and including 70%% surface coverage on a pigmented high density polyethylene copolymer bottle as meeting or exceeding APR's HDPE Bottle Critical Guidance Document and hereby so states. APR thanks Plastipak Packaging for additionally conducting commercial production-scale testing at 100% innovation test bottles to produce new, commercial-grade bottles for which no detrimental issues were noted.

A Review Committee, appointed per the APR Recognition Operating Procedures, reviewed your May 31, 2016 data submission and concluded the data were correctly obtained by a qualified laboratory and were completely presented to show the bottles with the direct printing submitted meet or exceed the HDPE bottle critical guidance. In addition, the submission included other specific data showing no change in color for plaques made from control and test bottles after reclamation processing. And the submission provided data on wash water color and strainable particulates in wash water. APR appreciates the extra work done in support of your petition.

The HDPE Bottle Critical Guidance Document is the product of multi-industry consensus of key issues related to the recycling of postconsumer HDPE bottles. The document directs innovators to conduct specific testing per established testing procedures and then provides the innovator with guidance to interpret the results. The APR recognition is based on the innovation meeting or exceeding the most challenging test conditions and strictest guidance criteria.

APR thanks Plastipak Packaging Incorporated for its cooperation in using this important protocol. The protocol is intended to improve the quality of recycled bottles by helping innovators to make informed decisions about the consequences of HDPE bottle innovations. The impact of APR protocols is beneficial to world-wide recycling efforts.

Our recognition applies only to Plastipak Packaging's Direct Object Printing with 70% and less surface coverage and not necessarily to bottles using the printing as those bottles would need to be tested themselves to demonstrate the system of resin, adjuvants, and closure conformed to the APR Critical Guidance Document. Meeting the Critical Guidance Document guidelines is truly a significant step in demonstrating overall recyclability of your decoration system.

Yours truly,

Stephan Alexander Executive Director, APR

