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FOR IMMEDIATE RELEASE

Date: 8/12/13
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Subject: **MoldWiz® INT-PA33FRK and INT-38F: AXEL's New Process Aid Additives for Nylon Improves Production of Cable Ties**

MoldWiz® INT-PA33FRK and INT-38F: AXEL's New Process Aid Additives for Nylon Improve Injection Molding of Cable Ties and Mechanical Parts

Woodside, NY USA – Axel Plastics Research Laboratories announces two new process aid additives that have been proven to improve injection molding of nylon cable ties and other mechanical parts, producing more parts in less time and improving physical properties and appearance of the molded parts.

The challenges in molding nylon cable ties and other small mechanical parts centers primarily adequate flow and cavity fill, as these parts are often thin in width and section, and, in the case of cable ties, can be quite long. Manufacturers often find that they are pushing resin to the highest possible process temperature, often bordering on the resins degradation point, to ensure that each mold cavity fills completely. Molding at the upper level of the resin's temperature range (or above) can have a negative impact on physical properties and also result in discoloration of the molded parts.

CASE HISTORIES:

Recently, several manufacturers of nylon mechanical parts produced with nylon 6.6

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have conducted injection molding evaluations utilizing two process aid additives from AXEL: MoldWiz® INT-PA33FRK (a liquid additive), and MoldWiz® INT-38F (an additive in pellet form). The flow additives were loaded at 3 parts /1000 based on weight utilizing liquid or pellet feeders as appropriate.

The first and most important observation was that both additives enabled resin to be injected on average at 10°F lower temperature than previously. In addition to exhibiting good flow at lower temperature, crystallinity was also excellent, enabling the cooling cycle of the injection process to be reduced on average 12.5%. These factors contributed to an overall cycle time reduction which correlated to a 4-7% increase in the number of parts produced.

Both flow additives were evaluated for impact on color in natural, or un-pigmented nylon and were considered to have no, or minimal impact on color generation. Tensile properties of the molded parts were also measured in both dry (or freshly molded state) and in a conditioned state (after being exposed to elevated and extended humidity to simulate product performance in use, as nylon is hygroscopic). Improved tensile values were achieved with both MoldWiz® INT-PA33FRK and MoldWiz® INT-38F when compared to parts produced with flow additives currently utilized.

At the conclusion of these trials, MoldWiz® INT-PA33FRK and MoldWiz® INT-38F were judged to provide: dependable and complete cavity fill even in thin walled long parts; permit faster molding cycles; avoid discoloration and reduced tensile properties often associated with molding with excessive heat; and yield profits based on increased part production. Depending on processing equipment and conditions, manufacturers can choose either the liquid-form flow additive, MoldWiz® INT-PA33FRK, or the convenient pellet-form additive MoldWiz® INT-38F to achieve improved processing of nylon resin.

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MoldWiz® INT-PA33FRK and MoldWiz® INT-38F are two of the hundreds of products produced by AXEL, a 72 year old, ISO 9001 registered manufacturer of proprietary mold releases and process aid additives. All of AXEL's products are REACH compliant and formulated from raw materials that comply with major worldwide chemical regulatory lists. Customers are served both through direct sales and by a network of 55 stocking distributors located in 46 countries around the globe. AXEL encourages requests for evaluation samples by visiting the company's web site at: www.axelplastics.com or e-mailing info@axelplastics.com.

For further information, samples, technical data sheets or for the name of a representative in your area, please contact Nancy Teufel at Axel, Box 77 0855, Woodside, New York 11377 (USA) | toll free 800-332-AXEL (2935) | 718-672-8300 extension 16, email: nteufel@axelplastics.com

MoldWiz® is a registered trademark of Axel Plastics Research Laboratories, Inc.



Caption:
MoldWiz® INT-PA33FRK and MoldWiz® INT-38F are process aid additives that improve flow and increase production of injection molded nylon parts like these cable ties.

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