

The background of the entire page is a high-resolution photograph of numerous small, cylindrical plastic granules. These granules are in three colors: a vibrant teal, a matte grey, and a solid black. They are scattered across a white surface, with a higher concentration in the lower-left area and more sparse distribution towards the top-right. The lighting is bright and even, highlighting the smooth texture and uniform shape of the granules.The AXEL logo is positioned in the top-left corner. It features the word "AXEL" in a white, serif typeface. The letters "A", "X", and "E" are in white, while the "L" is a light blue color. The logo is set against a dark, rectangular background that blends into the overall composition.

# solutions for thermoplastics

internal & external mold releases

AXEL offers a broad range of products focused on the needs of thermoplastic compounders and masterbatch producers, as well as those who are molding TP resins in a variety of processes. When you need the best, AXEL mold releases deliver unparalleled results.

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AXEL MoldWiz® additives are available for five primary functions: Release, Flow, Scratch and Mar, Reduction of Coefficient of Friction, and Dispersion. AXEL's MoldWiz® process aid additives are unique chemical formulations most commonly for compounding, injection molders, color houses, and master batch producers. AXEL's MoldWiz additives are specially engineered for optimum performance, with formulations for commodity resins as well as engineering grade and advanced polymer resins.

MoldWiz® additives are available in 100% powder, pellet, and liquid form, making these materials easy to use and highly effective at low addition rates. MoldWiz® additives can be used in compounding; in masterbatch production; in dry and liquid colors, and in pastes, but they can also be added directly by metering, gravimetrically feeding, or simply dry blending.

Normal addition levels are 0.1 – 1.0% by weight. For injection molding, typical addition level is 0.3-0.5%. For masterbatch production, higher addition rates may be used. When additives are used specifically for scratch or mar reduction 1-3% addition is usually required.

The products suggested below are most, but not all, of the additives that AXEL provides and are listed based on their most common use and performance. As the chart below shows, many AXEL additives are multifunctional. For additional assistance in selecting the best product, or if you don't see what you need, please contact us for assistance.

## Process Aid Additives

Resin Type	MoldWiz® Product Name	Mold Release	Rheology (Flow)	Scratch/Mar Reduction	Reduced C of F	Dispersion*	Form
ABS	INT-33LCA <sup>1</sup>	■	■	■	■		P, PT
	INT-34DLK <sup>1</sup>	■	■			□	P, PT
	INT-EQ6	■	■			□	L
CAB	INT-33LCA <sup>1</sup>	■	■		□		P, PT
	INT-34DLK <sup>1</sup>	■	■	□	□	□	P, PT
	INT-EQ6	■	■			□	L
LCP	INT-55PV	■	■				P, PT
	INT-EQ6	■	■				P, PT
PA/PPA	INT-38HM <sup>1</sup>	□	■		■	□	P, PT
	INT-38F	□	■			□	P, PT
	INT-43GHT	■	■	□	□	□	L
PAEK/PEEK	INT-43GHT	■	■			□	L
PBT & PBT alloys	INT-34DLK <sup>1</sup>	■	■				P, PT
	INT-40GHT <sup>1</sup>	■	■			■	L
	INT-701TPD	■	■	■	■	□	P, PT
	INT-EQ6	■	■			□	L
PC (Clear)	INT-33UDS	■	■	■	■	■	P, PT
PC & PC Blends	INT-701TPD	■	■	■	■	□	P, PT
	INT-33UDS <sup>1</sup>	■	■				P, PT
	INT-35UDH	■	■				P, PT
PC/ABS	INT-35UDH	■	■				P, PT
PE, HDPE, LDPE, LLDPE	INT-33LCA <sup>1</sup>	■	■		■	□	P, PT
	INT-33LSER	■	□	■	■	■	P, PT
PP, TPO, TPE, TPU, TPV	INT-701TPD	■	■	■	■	□	PT
	INT-34DLK <sup>1</sup>	■	■				P, PT

■ = Primary Functionality  
 ■ = Secondary Functionality  
 □ = Tertiary Functionality  
 P = Powder  
 PT = Pellet  
 L = Liquid

\* For dispersion of fillers or pigment in masterbatch production, please also refer to the table for Dispersion Additives.

<sup>1</sup> Raw materials used in these formulations conform to some regulations for plastics or films that come in contact with food.

## Process Aid Additives

Resin Type	MoldWiz® Product Name	Mold Release	Rheology (Flow)	Scratch/Mar Reduction	Reduced C of F	Dispersion*	Form
PEI	INT-43GHT	■	■			●	L
	INT-55PV	●	□			□	P, PT
PES	INT-33UDS¹	■	●				P, PT
	INT-55PV	■	●		□		P, PT
PET	INT-40GHT	●	■				L
	INT-34DLK	●	■				P, PT
	INT-33LSER	●	●	□	●		P, PT
PMMA (Acrylic)	INT-33UDS¹	●	■				P, PT
	INT-34DLK¹	●	■				P, PT
PMMA Cast	INT-AM2692B	●	■				L
	INT-AM121	●	■				L
POM	INT-33UDS¹	■	●				P, PT
PPO, PPE	INT-33UDS¹	●	■				P, PT
PPS	INT-33LSER	●	●				P, PT
	INT-33UDS¹	●	■				P, PT
PS, HIPS, CPS	INT-33LCA¹	●	■		■		P, PT
	INT-33LSER	●	●				P, PT
	INT-EQ6	●	■				L
PSO	INT-33LSER	●	●				P, PT
	INT-33UDS¹	●	■				P, PT
PVC	INT-66PV	●	●			■	P, PT
	INT-VP250	●	●				L
SAN	INT-33LCA¹	●	■				P, PT
	INT-34DLK¹	●	■				P, PT
SBS, SEBS	INT-33LCA¹	■	●				P, PT
	INT-34DLK¹	●	■				P, PT
	INT-33LSER	■	■		●		P, PT

## Dispersion Aids / Thermoplastics

Product Name	Features	Form
MoldWiz® INT-40GHT¹	Low viscosity, low color liquid improves wetting and dispersion. Also provides release when used in masterbatch production.	L
MoldWiz® INT-43GHT	Improved version of INT-40GHT in most cases.	L
MoldWiz® INT-40DHT¹	Useful for surface-treating TiO² and many other fillers to improve dispersion and/or to increase loading in masterbatch production.	P



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## External Mold Releases

		Product Name	Description	Application Technique / Temperature
<b>MoldWiz® Polymeric Release</b>	Solvent-based	F-57EF Aerosol	Easy to use during fluoropolymer release spray for injection molding any other products. Provides a dry film release. Will not contaminate parts or interfere in secondary processes. Provides multiple releases.	Spray at ambient or higher. Mold up to 500°F/260°C.
		AZN Aerosol	Easy to use spray provides a wet, lubricious release. Especially recommended for TPU, PP, PA, and other materials requiring added slip. Non-silicone. Provides multiple releases.	Spray at ambient or higher. Mold up to 500°F/260°C.
	Water-based	EM-606SFL	Good release for EVA and similar foamed thermoplastic sheet materials.	Spray at ambient or higher. Mold up to 450°F/232°C.
		WB-2700	Good choice for belt lamination of thermoplastic sheets.	Spray at ambient or higher. Mold up to 400°F/204°C.
		WB-4606	Especially suited to rotomolding LLDPE, and cross-linked PE. Effective release without any coining, pockmarking, or surface defects.	Spray at ambient or higher. Mold up to 450°F/232°C.
		WB-4707N	For treating parting lines, pins, inserts, and threads. Also high slip in-mold release for the most difficult-to-pull parts.	Spray, wipe, or dip.
		WB-4909R	General purpose rotomolding release. Ideal for tank and container production.	Spray at ambient or higher. Mold up to 450°F/232°C.
<b>Semi-Permanent XTEND® Releases</b>	Solvent-based	110EP	Semi-permanent, long lasting, durable release. Ideal for pressing, forming, or rotational molding applications.	Wipe or spray on at ambient or higher. Mold up to 800°F/426°C.
	Water-based	W-4008	Semi-permanent, long lasting release for rotomolding, hot press molding, and thermoforming. Good for high temperature resins and processes.	Wipe or spray on warm molds. Apply at 100°F/38°C or up to 150°F/66°C. Heat cure after application. Mold up to 1000°F/538°C.

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