



AXEL

# solutions for composites

## internal mold releases

Manufacturers of advanced composite products understand the importance of delivering finished goods with superior structural and surface quality. When you need the best, AXEL internal mold releases deliver unparalleled results.

## Polyester & Vinyl Ester

Peroxide Type / Group Classification	Product Name	Typical Application / Features
<b>MEKP</b> Ketone Peroxide	MoldWiz® INT-DLP-22E	Improved release, minimizes build up. For resins and gel coats.
	MoldWiz® INT-DLP-60RS	Improved release, minimizes build up. For resins and gel coats. Non-reactive, highest performance.
	MoldWiz® INT-15TBT	For clear or white gel coats; resin infusion.
<b>Perkadox® 16 (Akzo)</b> Peroxydicarbonate	MoldWiz® INT-PUL24	High performance internal release for most applications.
<b>TBPP Tertiary Butyl Perbenzoate</b> Peroxyesters	MoldWiz® INT-PUL34	Recommended for highly-filled ATH applications >40 or 50 phr.
<b>Triganox® C (Akzo)</b> Two Tier Cures Peroxydicarbonates + Peroxyesters	MoldWiz® INT-PS125	Excellent for aramid in combination with VE resins
	MoldWiz® INT-PUL524M	Low cost alternative to INT-PUL24.
<b>BPO</b> Diacyl Peroxide	MoldWiz® INT-54	
	MoldWiz® INT-542WT	
	MoldWiz® INT-1854	
<b>AAP</b>	MoldWiz® INT-DLP-22E	
	MoldWiz® INT-DLP-60RS	
<b>2, 4-Pentanedione</b> Ketone Peroxide	MoldWiz® INT-15TBT	
<b>Dicumyl Peroxide</b> Dialkyl Peroxides	MoldWiz® INT-PUL24	
<b>Cumene Hydroperoxide</b> Hydroperoxide	MoldWiz® INT-DLP-22E	Often used with thick-sectioned parts of vinyl ester resins.
<b>Lupersol® 231 (Atofina)</b> Peroxyketals	MoldWiz® INT-EQ6	Rapid molding and prolonged shelf life. For SMC and BMC.



## Epoxy

Typical loading level of MoldWiz® internal mold release in epoxy resin is 0.5% - 1.5% based on resin weight, and depending on the type of molding process. Resin formulations with higher filler loading generally require higher loadings of internal release.

Cure Type / Group Classification	Product Name	Typical Application / Features
<b>Aliphatic amines (Example: DETA)</b>	MoldWiz® INT-1846N2	High performance. Works for most epoxies. Minimal to no impact on gel time.
	MoldWiz® INT-1888LE	High performance. Works for most epoxies. Neutralized to prevent acceleration of cure.
	MoldWiz® INT-1850HT	For high temperature processing >350°F/167°C.
<b>Cycloaliphatic amines (Example: PACM)</b>	MoldWiz® INT-1846N2	For quick curing; filament winding.
	MoldWiz® INT-1850HT	
<b>Aromatic amines, MDA &amp; non-MDA based</b>	MoldWiz® INT-1888LE	High performance. Works for most epoxies. Neutralized to prevent acceleration of cure.
<b>Acid anhydride (Example: phthalic anhydride OR w/ tertiary amine or imidazole; MTHPA)</b>	MoldWiz® INT-1888LE	High performance. Works for most epoxies. Neutralized to prevent acceleration of cure.
	MoldWiz® INT-1324B	Excellent for balance of Tg, short beam shear, line speed, surface cosmetics, etc.
	MoldWiz® INT-1846N2	General purpose for anhydrides.
	MoldWiz® INT-1890M	Classic internal for anhydrides. Not for high temperature applications.
	MoldWiz® INT-1888LS	For high Tg requirements.
<b>DICY with other amines</b>	MoldWiz® INT-1324B	Excellent for balance of Tg, short beam shear, line speed, surface cosmetics, etc.
	MoldWiz® INT-1888LE	High performance. Works for most epoxies. Neutralized to prevent acceleration of cure.



www.axelplastics.com  
800.332.AXEL

# solutions for composites: internals

4

## Phenolics

Resin Type	Product Name	Typical Application / Features
<b>Novolac or Resol Liquid</b>	MoldWiz® INT-1850HT	Pultrusion.

## Polyurethanes

Product Name	Typical Application / Features
MoldWiz® INT-1230	General purpose release for foam or elastomers and non-aqueous in-mold coatings.
MoldWiz® INT-120IMC	Release additive for in-mold coatings and polyureas.
MoldWiz® INT-EPH19	Release additive for water-borne polyureas.
MoldWiz® INT-1681OG	release for optical grade cast PU.
MoldWiz® INT-1948MCH MoldWiz® INT-1968RAC	Release for PU pultrusion, primarily for aromatic and some aliphatic systems.
MoldWiz® INT-1960MCH	Release for PU pultrusion, primarily aliphatic systems.
MoldWiz® INT-1940RTM MoldWiz® INT-1944NRR	Release additive for RTM, infusion, or other closed molded PU processes. Can also be used in pultrusion when no extension of gel time is desired.

This information is supplied for technically skilled professionals working at their own risk. AXEL believes the information to be accurate, although the Company assumes no liability in the validity of the information for any specific process or application. Please refer to individual data sheets for further application, safety, and handling information. MoldWiz®, XTEND®, PasteWiz®, and CleanWiz® are registered trademarks of Axel Plastics Research Laboratories, Inc. © 2022, Axel Plastics Research Laboratories, Inc. All Rights Reserved. Rev Mar 2022.

50 Cambridge Drive | Monroe, Connecticut 06468 US  
800.332.AXEL | info@axelplastics.com | axelplastics.com



www.axelplastics.com  
800.332.AXEL