



INNOVATIVE FORMULATIONS & CUSTOMIZED SOLUTIONS

MOLD RELEASE AGENTS
FOR RUBBER, COMPOSITE,
AND URETHANE MOLDING
APPLICATIONS



DiamondKote[™]



CRYSTAL

CUSTOM FORMULATED MOLD RELEASE AGENTS



CAPABILITIES

Benefits	<ul style="list-style-type: none"> • Application Ease • Minimal Build Up • Higher Productivity • Lower Reject Rates
Formulations	<ul style="list-style-type: none"> • Water-based and Solvent-based Formulations
Types of Mold Release	<ul style="list-style-type: none"> • Sacrificial • Semi-Permanent • Permanent
Elastomer / Resin	<ul style="list-style-type: none"> • Natural Rubber • Synthetic Rubber (SBR) • Butyl / IIR • Nitrile / NBR • Silicone • EPDM-p • Halobutyl • HNBR • Ethylene Acrylic • FKM • Chloroprene • Urethane • Composite • Fiberglass
Testing	<p>ANALYTICAL CAPABILITIES</p> <ul style="list-style-type: none"> • Full Wet Chemical Testing • FT-IR with Transmission, Reflection, and ATR • IR and Visible Microscopy • UV-VIS Spectroscopy • UV-VIS Fluorescence • SEM and EDX • Microwave Solids Analysis • GC-MS • HPLC • Atomic Absorption • Thermal Analysis (including TGA, DSC, and DMA) • Mechanical Testing (peel, adhesion, tensile, flexure, fatigue - Instron is a sister ITW company) • Submicron Particle Size Analysis • Karl Fischer Analysis • Viscometry (disc, cone-plate) • Melt Indexer • Fineness of Grind • Abrasion Testing • Coefficient of Friction (static and dynamic)

**WE BRING EFFICIENCY AND
QUALITY IMPROVEMENT TO
YOUR OPERATION.**

Our mold release agents provide much more than just release of a molded part from the mold surface. DiamondKote™ and Crystal are comprehensive lines of water-based mold release agents that provide permanent, semi-permanent or sacrificial performance on all types of rubber elastomers, urethanes, fiberglass and other resins. Our innovative technologies allow us to provide you the release agent that will optimize your production process.

RELEASE AGENTS CUSTOMIZED TO YOUR PROCESS WILL:



Lower scrap rates



Save you time and money spent on cleaning by reducing downtime cost of cleaning-labor and material



Reduce transfer which is important for post painting or rubber to metal bonding needs



Help achieve desired cosmetic appearance (gloss, matte, overall feel, etc.)

The partner you need to increase capacity and get ahead of the competition.




INDUSTRY


CATEGORY

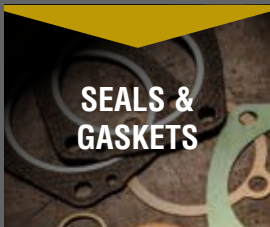
MATERIAL TYPES


VALUE

 <p>AUTOMOTIVE</p>	<p>ANTI-VIBRATION</p>	<p>Peroxide and sulfur cured EPDM, Butyl, Natural, SBR, HNBR, Neoprene, Nitrile, FKM, Viton®</p>	<ul style="list-style-type: none"> • Increased number of cycles between applications • Reduced scrap rate • Increased tool longevity • Controlled transfer-minimizes problems with secondary operations including post-adhesion and post-painting
	<p>POWER TRANSMISSION BELTS</p>	<ul style="list-style-type: none"> • EPDM • CR • Natural • SBR • NBR 	<ul style="list-style-type: none"> • Increased production efficiencies • Fewer applications • Less frequent mold cleaning • Better release performance
	<p>SOLID AND PNEUMATIC TIRES</p>	<p>Commercial and Passenger Tire Cavity Lube - Sidewall</p>	<ul style="list-style-type: none"> • Documented 67% reduction in consumption • Documented increased productivity by as much as 4,200 tires per year • Increased cavity lube-sidewall-bladder life • Tool longevity increased, cleaning expense minimized
	<p>AUTO INTERIOR COMPONENTS MOLDING</p>	<p>Dashes, Steering Wheels, Window Encapsulation</p>	<ul style="list-style-type: none"> • Provided appropriate gloss and appearance • Improved release offers superior performance in manufacturing process • Limited transfer for better adhesion

 <p>BUILDING & CAPITAL EQUIPMENT</p>	<p>FIBERGLASS BOARD AND INSULATION PRODUCTS</p>	<p>Type of resin:</p> <ul style="list-style-type: none"> • Acrylic 	<ul style="list-style-type: none"> • Reduced downtime and increased productivity savings up to 80% • Reduced mold release usage • Improved finish product quality • Eliminated unpleasant odors • Provided for good adhesion
	<p>CONVEYOR BELTS</p>	<ul style="list-style-type: none"> • EPDM • CR • Natural • SBR • NBR 	<ul style="list-style-type: none"> • Increased production efficiencies • Fewer applications • Less frequent mold cleaning • Better release performance

 <p>SPORTING GOODS & ATHLETIC APPAREL</p>	<p>GOLF BALL CORE AND COVER MOLDING</p>	<ul style="list-style-type: none"> • Natural • SBR • Urethane • Butyl • Surlyn 	<ul style="list-style-type: none"> • Water-based, non-flammable, environmentally friendly formulation • Excellent release-ease lasting multiple cycles per single application • Controlled transfer to molded part • Improved part cosmetics, reduced scrap rates • Reduced amount of ammonium perfluorooctanoate(APFO)
	<p>SHOE COMPONENTS</p>	<ul style="list-style-type: none"> • Polyurethane • EVA 	<ul style="list-style-type: none"> • Provided appropriate gloss and appearance • Improved release offers superior performance in manufacturing process • Limited transfer for better adhesion

 <p>SEALS & GASKETS</p>	<p>AUTOMOTIVE OIL AND GAS MANUFACTURING</p>	<p>Vamac, FKM, all sulfur and peroxide compounds</p> <ul style="list-style-type: none"> • Natural • SBR • Neoprene • Nitrile • Butyl <p>Bisphenol A-cured fluoropolymers</p>	<ul style="list-style-type: none"> • Increased number of cycles between applications • Reduced mold release usage • Improved production efficiencies • Reduced transfer to the parts for better post bonding • Less build-up on the molds reducing downtime for cleaning • Lower scrap rates • Improved part cosmetics
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 <p>GENERAL RUBBER GOODS</p>	<p>PHARMA (TEST TUBE STOPPERS)/ SCIENCE/ WIND</p>	<p>Peroxide and sulfur cured EPDM, Butyl, Natural, SBR, HNBR, Neoprene, Nitrile, FKM, Viton®</p>	<ul style="list-style-type: none"> • Reduced build-up on molds and semi-permanent release resulting in increased number of cycles between applications • Scrap rate reduction • Increased tool longevity
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DIAMONDKOTE™ MOLD RELEASE AGENTS FOR GENERAL RUBBER MOLDING OF SEALS, GASKETS, AND ANTI-VIBRATION APPLICATIONS

DKW-3551B

MOST VERSATILE formulation for sulfur cured rubber compounds including Natural, SBR, EPDM, Nitrile, and Butyl. Little transfer for rubber to metal bonded parts.

DKW-4237

MOST VERSATILE for peroxide cured compounds. Excellent for FKM and other exotic compounds.

DKW-71E

Excellent release for all Halobutyl compounds for the pharmaceutical industry.

DKW-3178G3X

Provides high mechanical slip of tough to remove parts. For sulfur cured Natural, SBR, EPDM, Nitrile, and Butyl compounds.

DKW-4013A

Most effective on silicone and Fluorosilicone elastomers.

DKW-4168

HIGHLY VERSATILE formulation for seals and gasket molding using FKM, Silicone, EPDM, and others. Excellent cycle life, cleaner molds, reduced scrap.



DIAMONDKOTE™ FOR TIRE MOLDING

DKW-4550CL

Cavity lube with good slip, longevity and low transfer.

DKW-4580CL

Cavity lube with high mechanical slip for deep treads.

DKW-4650BL

Bladder pre-treatment for increased bladder life.



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