

High Performance Products to Improve Mold and Production Efficiency



- **MOLD GREASES**

NanoCeramicGrease.....	p.3
CeraLubeSprayGrease.....	p.3

- **RUST & CORROSION PREVENTATIVES**

Mold Guard.....	p.4
Mold Guard Green.....	p.4
The Defender.....	p.4

- **CLEANERS & DEGREASERS**

Power Clean.....	p.5
Mold Brite.....	p.5

- **SPECIALTY CLEANERS**

Zap-OX.....	p.6
NanoMoldCleaner.....	p.6

- **SPRAY MOLD RELEASES**

Dri-Kote.....	p.7
Tuff Kote.....	p.7

- **NANO MOLD REALEASE COATINGS**

NanoMoldCoating HC & HCF.....	p.8
NanoMoldCoating QC,QCru,QCsi.....	p.8

Integrated Family of Products to Improve Mold and Production Efficiency

PCT Europe’s high performance mold maintenance products are designed to work as an integrated family of products with the sole purpose of making the plastic injection molding process more efficient. This simplified grouping is designed to eliminate waste and inefficiencies caused by the outdated, mold maintenance products that have been used for years. No other company has the products to make the molding process run as productively as PCT Europe.

PCT Europe’s family of Mold Maintenance products include mold release coatings, grease, spray lubricants, cleaners/degreasers, rust preventatives, and spray-on mold release. Each product is designed to improve mold and production efficiency.

How do our products make your molding process more efficient?

If a mold is cleaned properly down to the bare metal, it can often run efficiently without any other treatment. Our **Mold Brite** does just that! If a clean mold is not enough and you are having to use mold release agents, our **NanoMoldRelease** coatings can eliminate the need for spray-on mold releases and improve start up scrap issues and fill times while reducing mold down time.

If scrap at startup is a problem, our **Mold Guard** “dry” rust preventative goes on dry and does not bleed grease into the molding area. It can also be molded over without having to clean the mold first. Another cause of startup scrap from bleeding is grease. Our **NanoCeramicMold Grease** can withstand much higher temperatures than standard greases, therefore, eliminating bleeding. Lastly, our **Zap-Ox** residue remover can clean gas stains, rust and other oxides within minutes, where it may take hours with standard resin removers.

Each of these products can be used separately, but when used together this integrated family of products will make your mold run more efficiently than you have ever imagined.

Mold Greases	Rust & Corrosion Preventatives	Cleaners & Degreasers	Spray Mold Releases	Nano Mold Coatings	
				Heat cured	Quick cured
NanoCeramic Mold Grease	Mold Guard	Power Clean	Dri-Kote	HC	QC15
Cera Lube Spray Grease	Mold Guard Green	Mold Brite	Tuff-Kote	HCF	QC15S
	The Defender	Zap-Ox			QC15R
		Nano Mold Cleaner			

Mold Greases

NanoCeramicGrease

Extreme Performance Lubricating Grease



- Extraordinary adhesion, remains on the surface even under extreme pressure and temperature
- Does not soften and run out of the application during use
- Operating temperatures up to 426°C
- Provides outstanding protection against rust and corrosion. Resists water, steam, acid, salt and most corrosive chemicals
- High load bearing properties
- High pressure and anti-wear protection
- NSF Food Grade Certified; chemically inert and environmentally friendly
- Super low coefficient of friction, lower than PTFE greases
- Does not contain PTFE, silicone, lead, chlorine, zinc, antimony, barium
- Color white

Part Number	Package Size	Container	Package Quantity	Shelf Life
NCG - 1	454 g	Tube	1	2 years
NCG - 12	454 g	Tube	Case (12)	2 years
NCG - 2	3,8 l	Tub	1	2 years
NCG - 3	19 l	Pail	1	2 years

Cera Lube Spray Grease

Ideal to penetrate into tight passages



- White lithium grease lubricant formulated to spray on evenly and set dry
- Operating temperature up to 343°C
- The ceramic reinforced PTFE additives provide superior adhesion in high wear applications
- Protects against rust and corrosion
- Does not breakdown or run off in high wear applications
- Excellent adhesive to all metal surfaces
- Low thermal expansion
- Resists moisture and outside contaminants
- Compatible with NanoCeramicGrease

Part Number	Package Size	Container	Package Quantity	Shelf Life
CL - 1	454 g	Can	1	2 years
CL - 12	454 g	Can	Case (12)	2 years

Rust & Corrosion Preventatives

Mold Guard & Mold Guard Green

Rust Preventatives



- Provides superior rust protection when mold is in storage
- True dry rust preventative
- Goes on dry and stays dry
- Does not break down grease
- Eliminates bleeding at start-up
- Can be molded through at start-up
- Prevents harmful corrosion from penetrating the mold
- Moisture displacing chemistry
- Excellent film strength
- Adjustable volume nozzle for desired amount of spray
- Mold Guard Green has a green tint for easy visibility when applied

Description	Part Number	Package Size	Container	Package Quantity	Shelf Life
Mold Guard	MG - 1	291 g	Can	1	30 months
Mold Guard	MG - 12	291 g	Can	Case of 12	30 months
Mold Guard Green	MG-G - 1	291 g	Can	1	30 months
Mold Guard Green	MG-G - 12	291 g	Can	Case of 12	30 months

The Defender

Rust & Acid Corrosion Preventative



- Semi Dry for longer lasting protection
- Does not migrate or cause bleed-through
- Moisture displacing chemistry
- Protects when molding PVC or other corrosive materials
- Molds off in just a few shots
- Up to 3 year protection
- Easy removal
- Green tint allows for easy visibility and helps prevent over spray on the mold

Part Number	Package Size	Container	Package Quantity	Shelf Life
D - 1	291 g	Can	1	2 years
D - 12	291 g	Can	Case of 12	2 years

Cleaners & Degreasers

Power Clean

Extreme performance cleaner & degreaser



- Most aggressive cleaners on the market
- Contains chlorinated cleaning agents
- Effectively removes dirt and contaminants from surface and pores
- Quick evaporation
- Cleans without wiping
- Residue free
- Low odor
- Safe to use on all metal surfaces
- Works on all temperatures

Note: Power Clean will remove NanoMoldCoating™

Part Number	Package Size	Container	Package Quantity	Shelf Life
PC - 1	454 g	Can	1	30 months
PC - 12	454 g	Can	Case of 12	30 months

Mold Brite

High performance cleaner & degreaser



- Non-chlorinated formula
- Powerful cleaning formula for difficult to remove contaminants
- Cleans surfaces down to the virgin metal
- Flushes contaminants from the pores without wiping
- Fast evaporating chemistry eliminates issues with bleeding into ejector pins and hard to reach areas
- Residue free

Note: Mold Brite will remove NanoMoldCoating™

Part Number	Package Size	Container	Package Quantity	Shelf Life
MB - 1	354 g	Can	1	30 months
MB - 12	354 g	Can	Case of 12	30 months

Specialty Cleaners

Zap-Ox

The ultimate stain remover



Zap-Ox is the ultimate stain remover. Its ability to remove rust, oxidation, build-up & weld discoloration is unmatched. Time spent cleaning a mold is significantly reduced when using Zap-Ox. Non-caustic and operator friendly, Zap-Ox is safe to use and brings metal back to its original state. Zap-Ox is designed to improve mold and production efficiency.

- Removes rust, oxidation, build-up & weld discoloration
- Unmatched stain removing ability
- Bring metal back to its original state
- Time spent cleaning a mold is significantly reduced
- Does not etch the surface of the metal
- Non-caustic and operator friendly
- Safe to use on all metal surfaces
- Suitable for aluminum

Note: Zap-Ox will remove NanoMoldCoating™

Part Number	Package Size	Container	Package Quantity	Shelf Life
ZO - 1	454 g	Bottle	1	30 months
ZO - 12	454 g	Bottle	Case of 12	30 months

Nano Mold Cleaner

Cleans without removing NanoMoldCoating



NanomoldCleaner is designed specifically to be used on molds which have been coated with NanoMoldCoating™. NanoMoldCleaner effectively penetrates grease and oils without removing the NanoMoldCoating™. It is a non-toxic, non-flammable and a biodegradable product.

- Formulated to clean molds coated with NanoMoldCoating
- Penetrates grease and oils
- High strength concentration
- Non-toxic
- Non-flammable
- Biodegradable

Part Number	Package Size	Container	Package Quantity	Shelf Life
NCC - 1	379 g	Bottle	1	30 months
NCC - 12	379 g	Bottle	Case of 12	30 months

Spray Mold Releases

Dri-Kote

Medium Duty Mold Release



- Applies a light and dry finish to the mold
- Does not break down grease
- Use less, last longer
- No effect on painting or other decorative finishes
- Quick drying chemistry
- Works on all temperatures
- No build up on the mold
- Non-silicone formula
- Safe on all plastics

Part Number	Package Size	Container	Package Quantity	Shelf Life
DK - 1	305 g	Can	1	2 years
DK - 12	305 g	Can	Case of 12	2 years

Tuff Kote

Heavy Duty Mold Release



- Effective in the most difficult molding applications
- Heavy duty formula lasts longer on the mold
- No effect on painting or other decorative finishes
- Quick drying chemistry
- Works on all temperatures
- No build up on the mold
- Non-silicone formula
- Safe on all plastics

Part Number	Package Size	Container	Package Quantity	Shelf Life
TK - 1	305 g	Can	1	2 years
TK - 12	305 g	Can	Case of 12	2 years

NanoMoldReleasesCoatings

What is Nanotechnology?

Nanotechnology, also called **molecular manufacturing**, is a technology capable to manipulate the structure of materials at an atomic and molecular scale (0.1 to 100 nanometers in size).

Nanotechnology allows developing new materials (nanomaterials) and improve the structure of existing materials in an effort to manufacture high performance products and devices.

The plastics industry uses nanomaterials to create polymers with greater performance (conductivity, strength, flexibility, durability, surface characteristics, etc...).

What is NanoMoldCoating?

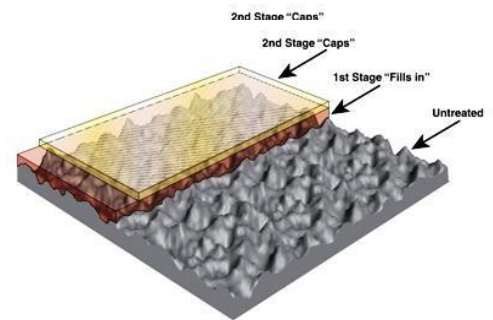
A semi-permanent mold release coating scientifically formulated with the use of nanomaterials. It creates a film on the surface of a mold, which eliminates parts sticking and significantly improves release for difficult parts.

How the NanoMoldCoating works?

NanoMoldCoating is formulated by several chemical components that self-assemble when applied to a substrate.

These components work synergistically to form a microscopic netting that prohibits molecules from fluids or polymers from coming into contact with surface structures of the substrate.

As the coating is applied it completes two stages. In the first stage it anchors itself to the substrate by filling in the microscopic hills and valleys in the substrate and attaching to free molecules at the surface. In the second stage the coating cross links while it cures forming a microscopic nano-mesh structure.



Properties of the NanoMoldCoating

- Transparent film thickness of 100-200nm
- Withstands temperatures of between - 45° C to 537 °C
- Hydrophobic and oleo phobic (water and oil repelling)
- Vapor permeable allowing gases to escape from the substrate
- Low coefficient of friction
- Offers corrosion protection
- Can be used on all tool steel and aluminum surfaces
- Can be used to release all thermoplastic, thermoset and rubber materials
- Does not migrate to part surface
- Non-toxic
- Inherent flexibility allowing it to stretch and contract with the substrate
- It does not affect part dimensional tolerances in anyway

Benefits to the Molding Industry

- Increases productivity – more parts per hour, per shift, per day
- Flexibility – Quickly and easily applied in house
- Cost effective – no need to ship tools to secondary vendors for expensive coatings
- Enhances material flow in molds due to its low coefficient of friction
- Improves part packing capability while allowing parts to release easily
- Allows for reduction in injection pressure and temperatures
- Eliminates streaking and drag marks upon mold filling
- Eases cleaning of material buildup due to outgassing resins
- Eliminates the use of aerosol and other mold release agents
- Can be used in clean rooms and in secondary painting facilities
- Maintains dimensional integrity of molds

Nano Mold Releases Coatings

NanoMoldCoating Heat Cured HC & HCF

Semi-permanent release coating for mold surface



- Withstands temperatures up to 537°C
- Can be used with all types of resins
- Cure time = 3/ 4 hours
- Best applied when mold is not in the press
- Applied to molds at room temperatures
- Limited ability to bond to plated or retreated mold surfaces (PTFE, nickel, chrome, boron, etc.)
- The HCF formulation is FDA approved

Each HC kit includes:

Bottle of NanoMoldCoating
 Bottle of NanoMoldCoatingRemover
 Microfiber application cloths
 Spray tip, Swabs
 Application Instructions

Each HCF* kit Includes:

Bottle of NanoMoldCoating – Part A
 Bottle of NanoMoldCoating – Part B
 Bottle of NanoMoldCoatingRemover
 Application cloths, Spray Tip, Swabs, Eyedropper
 Application Instructions

*FDA certificated

Part Number	Container	Package Size	Coverage	Shelf Life Unopened	Shelf Life Opened
NANO5HC	Bottle	5 ml	0,3 - 0,5 m ²	6-9 months	1-2 months
NANO15HC	Bottle	15 ml	0,9 - 1,4 m ²	6-9 months	3-4 months
NANO25HC	Bottle	25 ml	1,4 - 2,4 m ²	9-12 months	3-4 months
NANO50HC	Bottle	50 ml	2,8 - 4,6 m ²	9-12 months	3-4 months
NANO10HCF (FDA)	Bottle	10 ml	0,5 - 0,9 m ²	3-4 months	1 month
NANO15HCF (FDA)	Bottle	15 ml	0,9 - 1,4 m ²	3-4 months	3-9 months
NANO25HCF (FDA)	Bottle	25 ml	1,4 - 2,3 m ²	+ 6 months	3-9 months
NANO50HCF (FDA)	Bottle	50 ml	2,8 - 4,6 m ²	+ 6 months	3-9 months

Nano Mold Releases Coatings

NanoMoldCoating Quick Cure QC

Semi-permanent release coating for mold surface



- Withstands temperatures up to 250-260°C
- Three formulations:
QC: standard resin applications
QC-RU: rubber applications
QC-SI: silicone applications
- Cure time: 10-15 minutes
- Can be applied while the mold is in the press
- Applied to mold at temperatures (around 50°C)
- Bonds well to plated or pretreated surfaces (PTFE, nickel, chrome, boron, etc)
- No FDA formulation

Each kit includes:

Bottle of NanoMoldCoating
Bottle of NanoMoldCoatingRemover
Microfiber application cloth
Swabs
Application instructions

To prevent removal of NanoMoldCoating™, use NanoMoldCleaner only

Part Number	Package Size	Coverage	Operating Temperature	Application Type	Shelf Life
NANO2QC	57 ml	0,3 - 0,5 m ²	260 ° C	Standard resin application	18 months
NANO8QC	227 ml	1,2 - 1,8 m ²	260 ° C	Standard resin application	18 months
NANO2QCR	57 ml	1,2 - 1,8 m ²	260 ° C	Rubber application	18 months
NANO8QCR	227 ml	0,3 - 0,5 m ²	260 ° C	Rubber application	18 months
NANO2QCS	57 ml	0,3 - 0,5 m ²	230 ° C	Silicone application	18 months
NANO8QCS	227 ml	1,2 - 1,8 m ²	230 ° C	Silicone application	18 months