



Transforming  
surfaces  
...and beyond

# PURGE EMULSION FOR PLASTIC PROCESSING MACHINES



**SIMPLY  
BETTER  
PURGING.**





# CORATEX AND CORATEX HT

## GENERAL INFORMATION

CORATEX is a high-performance purging emulsion designed for plastic processing machinery. It is primarily used for colour- and material changes, in preparation of preventive maintenance programs, for the removal of polymer degradation ("black specks") and during machine start-up after closing down. CORATEX ensures the effective purging of critical components such as screws, cylinders, extruder heads, nozzles, and hot runner tools within injection molding machines.

CORATEX HT is also highly regarded for the manual purging of machine components.

Both CORATEX and CORATEX HT are extensively employed across various sectors, including the packaging industry, film production, and the toy manufacturing industry and are mixed with your polymer and applied under reduced process temperatures.

## CORATEX AND CORATEX HT

- > **Purging**      Barrels and screws, nozzles, and hot runner tools of extruders and injection molding machines (in operation)
- > **Facilitates**    Rapid material changes and increased production efficiency
- > **Eliminates**    Stubborn contamination, oxidation traces, and carbonization residues
- > **Advantage**    Low purging process costs combined with ease of operation
- > **Materials**     ABS, CA, PMMA, PA, PC, PET, HDPE, LDPE, PEAK, POM, PP, PS, PSU, PVC, PVDF, SAN, TPU, etc.

Description	Content	Packaging Unit	Article Number
<b>CORATEX</b>	800ml	10 bottles	66261030130
<b>CORATEX HT</b>	800ml	10 bottles	66261030549

## THE UNIQUENESS OF CORATEX IS BASED ON 3 PILLARS:

### QUALITY

CORATEX is an innovative material designed for efficient performance and meets the highest standards. Quality awareness is a central theme throughout the CORATEX production process.

Strict quality control during production is key to its reliability. This product has proven its benefits to plastic processors for decades.

CORATEX is manufactured in a certified production environment to ensure consistent product performance and is „Made in Germany.“

### EFFECTIVE

CORATEX delivers convincing purging results by removing stubborn material contamination, colors, and oxidation traces. Compared to other purging systems, CORATEX achieves excellent and cost-effective results. It ensures significant time and cost savings and is easy to use.

CORATEX quickly and reliably removes extra stubborn contamination, oxidation traces, and carbonization residues. Compared to competitor products, CORATEX consistently achieved the best results. CORATEX can be applied directly within the work process, offering the user substantial time and cost savings. CORATEX is easy to use.

### VERSATILE

CORATEX is a concentrated liquid that offers additional capabilities for manual purging compared to granular products. It can be mixed as an additive with all types of polymers to become a purging material.

It takes only a few minutes to make CORATEX ready for use. As a concentrate, it is versatile and compatible with all common polymers, eliminating the need for storing purging granules. When using high-quality plastics, CORATEX can also be mixed with "PP natural" or "PP crystal clear" to reduce purging costs. PP withstands temperatures up to 320°C.

## APPLICATIONS FOR CORATEX

CORATEX and CORATEX HT are concentrated liquids that can be used with all types of polymers.

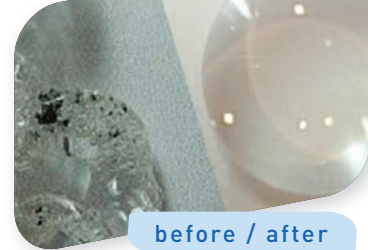
Typical applications for purging/cleaning:

- ▶ Extrusion lines, such as compounding, pipe, sheet, profile, cable, masterbatch
- ▶ Injection molding machines with conventional or hot runner tools
- ▶ Film blowing and blow molding machines
- ▶ Manual polishing for final finishing



**CLEANING WITH CORATEX:  
A SUCCESSFUL CONCEPT THAT PAYS OFF!**

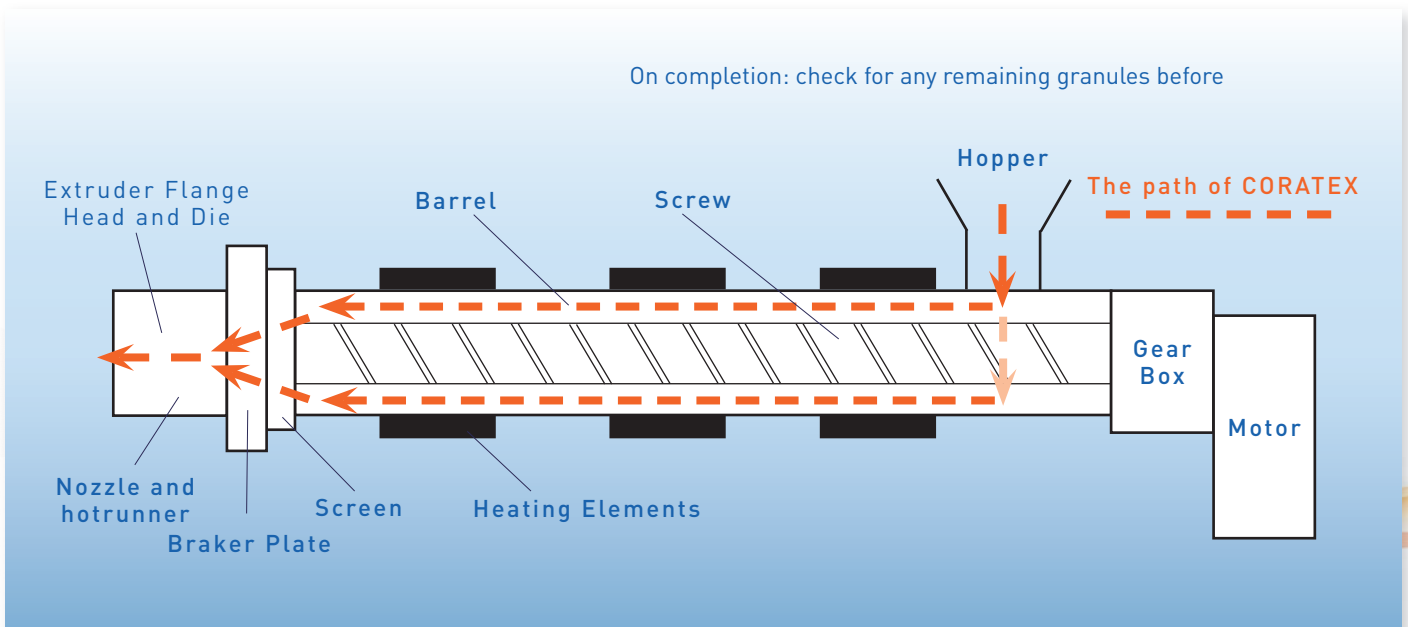
"Black Specks" after injection moulding of PMMA



## HOW DOES THE PURGING WITH CORATEX WORK?

Using the example of purging an extrusion line, we provide a brief overview of the key process steps below.

During extrusion, the plastic enters the cylinder via the material feed, where it is melted, homogenized, and compacted, and then pressed through the tool using the screw.





1



**PREPARATION**

Check your machine parameters and ensure free access of the purging mix into the machine hopper.

The hopper should be free of loaders, dryers, and similar equipment, so the purging mix can be fed directly onto the screw.

2



**TEMPERATURE SETTINGS**

Depending on the specific thermoplastic material, approximately 10-20% below normal processing temperatures, see the Temperature / Ratios table.

Alternatively, using a material with a lower melt flow as a carrier for CORATEX can allow the processing temperature to remain at the normal processing temperature during purging. In both cases, it is advisable not to lower the mold temperature.

3



**PREPARATION OF THE PURGING MIXTURE**

Ensure that the polymer granules are evenly coated with CORATEX and that no clumps form. Maintain the correct ratio of CORATEX to plastic granules. Always shake the CORATEX bottle well before use! Add 2 to 4% CORATEX to the plastic granules and mix or tumble well to obtain the purging mix.

Note: Do not overdose CORATEX; overdosing leads to feeding problems (bridging!).



# 7 STEPS FOR OPTIMAL PURGING

4



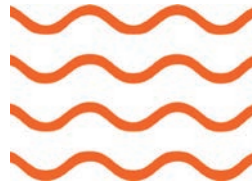
## PURGING PROCESS

Check if the set purging temperatures have been reached.

If possible, reduce the screw speed by approximately 50%.

Run the prepared purging mix through the plastic processing machine and through the connected nozzles or tools, if they have been left on the machine. Adjust the temperature at the screw so that the mass comes out slightly flaky at the end.

5



## FLUSHING

After the purging granulate has passed through, pure plastic granulate is reused in the subsequent production process.

The quantity is approximately 30% of the amount of purging granulate.

6



## CONTROL

Check the purging result. If there is still contamination, purge again with CORATEX (steps 2 to 5).

Note: If contamination persists after the second purging cycle with CORATEX, we recommend manually cleaning the machine.

7



## ON COMPLETION

Check and remove any remaining coated granulate pellets in the feed section and set the normal production temperatures before starting the next production run of the machine.

**CORATEX - MAXIMUM PURGING RESULTS WITH MAXIMUM COST EFFICIENCY!**



**TEMPERATURES / PROPORTIONS**

Type of Plastic		Processing Temperature Range	Purging Temperature Range	Coratex proportion in the Purging Mix			
				Screw Diameter < 60 mm Ø		Screw Diameter > 60 mm Ø	
		(°C)	(°C)	ml/kg	in g/kg	ml/kg	in g/kg
Acrylnitrile-Butadiene-Styrene Copolymer	ABS	200 - 250	170 - 190	18-25	25 - 35	25 - 36	35 - 50
Acrylonitrile-Copolymer	SAN	200 - 220	180 - 200	18-25	25 - 35	25 - 36	35 - 50
Cellulose-Acetate	CA	220 - 260	190 - 230	18-25	25 - 35	25 - 36	35 - 50
PEEK	PEEK	370 - 390	340 - 360	18-25	25 - 35	25 - 36	35 - 50
Polyamide	PA	250 - 280	220 - 230	18-25	25 - 35	25 - 36	35 - 50
Polycarbonate	PC	280 - 330	230 - 280	18-25	25 - 35	25 - 36	35 - 50
Polyester (amorphous)	PET	180 - 220	150 - 200	18-25	25 - 35	25 - 36	35 - 50
Polyester (linear)	CPET	230 - 300	200 - 250	18-25	25 - 35	25 - 36	35 - 50
Polyethylene	HDPE/ LDPE	180 - 250	150 - 190	18-25	25 - 35	25 - 36	35 - 50
Polymethyl-Methacrylate	PMMA	210 - 230	180 - 200	18-25	25 - 35	25 - 36	35 - 50
Polyoxymethylene	POM	170 - 210	140 - 170	18-25	25 - 35	25 - 36	35 - 50
Polypropylene	PP	200 - 250	170 - 200	18-25	25 - 35	25 - 36	35 - 50
Polystyrene	PS	200 - 270	170 - 210	18-25	25 - 35	25 - 36	35 - 50
Polysulphonate	PSU	350 - 400	320 - 350	18-25	25 - 35	25 - 36	35 - 50
Polyvinylchloride*	PVC	160 - 180	140 - 160	18-25	25 - 35	25 - 36	35 - 50
Polyvinylidene Fluoride	PVDF	200 - 220	180 - 200	18-25	25 - 35	25 - 36	35 - 50
Thermoplastic Polyurethane	TPU	200 - 220	180 - 200	18-25	25 - 35	25 - 36	35 - 50

When purging a machine used for PVC, we recommend using PP as the purging material carrier; refer to our special application guide for more information. Volume of the cap (on the bottle) = 30 ml

**QUANTITY REQUIRED FOR PURGING MIX WITH CORATEX AND CORATEX HT**

Screw dia. (in mm)	20 - 40	40 - 50	50 - 60	60 - 80	80 - 100	100 - 120	120 - 150	150 - 175	175 - 200
(in inch)	0.75 - 1.5	1.5 - 2	2 - 2.5	2.5 - 3	3 - 4	4 - 4.5	4.5 - 6	6 - 6.5	6.5 - 8
Recommended* (in kgs)	0,5 - 1	1 - 3	3 - 5	5 - 10	10 - 25	25 - 35	35 - 70	70 - 90	90 - 150

\* Approximate values; depending on screw configuration and degree of contamination. Suitable for all known commercially available polymers and processing temperatures up to 400°C / 750°F. **CORATEX HT** can be as valuable for manual cleaning as it is for purging. **CORATEX HT** is also extremely suitable as a polishing agent for tools, moulds and stainless steel surfaces.



## CLEANING INSTRUCTIONS FOR SPECIAL CONDITIONS

Special condition	Action
Small-diameter screw ( $\leq 30$ mm)	<ul style="list-style-type: none"> <li>Exact adherence to the mixing ratio of CORATEX and plastic granules in the cleaning granules is mandatory. Mix well to ensure that the cleaning granules remain free-flowing.</li> <li>If there are feeding problems, reduce the proportion of CORATEX in the cleaning granules and increase the screw speed slightly.</li> </ul>
System with degassing zones	<ul style="list-style-type: none"> <li>Due to insufficient pressure build-up, cleaning granulate with CORATEX does not normally work in the degassing zones. In many cases, a cleaning effect can be achieved with the following measures:               <ul style="list-style-type: none"> <li>- Further reduce the temperature in the degassing area</li> <li>- Clean according to standard procedure</li> <li>- Additional forced feeding with cleaning granulate through the degassing openings</li> </ul> </li> </ul>
For temperature jumps from e.g. 200°C to 320°C or PVC to PC or PA	<ul style="list-style-type: none"> <li>If raw materials with different processing temperatures, such as PVC and PC or PA, are changed, the cleaning process must be carried out with an intermediate carrier, e.g. natural PP, to ensure proper cleaning.</li> </ul>
Using high-quality plastics	<ul style="list-style-type: none"> <li>If high-quality and expensive plastics are used, a successful method of further reducing cleaning costs is to use a cleaning granulate made of 'natural PP' or 'PP crystal clear' and 3% CORATEX. (PP is resistant to temperatures of up to 320°C and can therefore be used for almost all plastics.)</li> </ul>
Prevention	<ul style="list-style-type: none"> <li>We generally recommend preventive cleaning with CORATEX every 2-4 weeks</li> </ul>

## HOW ARE POOR PURGING RESULTS CORRECTED?

Problem	Cause	Solution
After purging with CORATEX, contamination is still observed in the plastic melt	<ul style="list-style-type: none"> <li>Stubborn contamination</li> <li>Severe damage to the screw (for example, grooves, cavities, porous sections)</li> <li>Damage to the inner wall of the cylinder (for example, cracks, grooves, dents)</li> <li>Unfavorable flow properties in the head, nozzle, and tool area (due to construction or wear)</li> </ul>	<ul style="list-style-type: none"> <li>Repeat the flushing according to the standard procedure and further lower the temperature in the extruder</li> <li>Replace the screw</li> <li>Rework the cylinder</li> <li>Repair or replace the parts causing unfavorable flow properties with better-constructed parts</li> </ul>
Hot runner system is not properly cleaned	<ul style="list-style-type: none"> <li>Unfavorable flow properties in the hot-runner system (for example, cavities, undercuts, misalignments)</li> <li>Too low temperature of the hot-runner system</li> </ul>	<ul style="list-style-type: none"> <li>Change the design of the hot-runner system</li> <li>Further increase the temperature of the hot-runner system (depending on the tool)</li> </ul>
Extreme contamination or color streaks, such as from carbon or after system shutdown		<ul style="list-style-type: none"> <li>Stop the screw generally for 15 minutes and let the flushing mixture work in the extruder and the hot-runner system</li> </ul>



IS A BRAND OF SAINT-GOBAIN

**CORATEX HT.**  
**VOC- AND AMMONIA-FREE.**  
**WITH ORANGE SCENT.**



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