

# PURGiNGiT

## P & P CREAM in SACHET

Processing temperature: 70°C - 420°C

**Dosing:** *P&P CREAM™ SACHET* 2% of the barrel capacity (see table below)

**SACHET: 20 gr**

Injection moulding machine	Barrel capacity	Nr Sachets
50 Tonn	0,2 Kg	1
100 Tonn	0,5 Kg	1
200 Tonn	1,0 Kg	1
400 Tonn	2,0 Kg	2
600 Tonn	3,0 Kg	3
800 Tonn	4,0 Kg	4
1000 Tonn	5,0 Kg	5
1500 Tonn	7,5 Kg	7
2000 Tonn	10,0 Kg	10

### How to use *P&P CREAM™ SACHET*

When cleaning keep the same parameters (such as temperature, screw speed etc.) as the last material to be processed

### BARRELS , SCREWS, NOZZLES and HOT RUNNERS

1. Upload and purge material (Natural or next production) in an amount to eliminate most of the residue of dirty.
2. Empty the plasticizing group (**HOPPER AND BARREL**)
3. While the screw is turning put the sachets into the throat load (**WITHOUT OPENING**) (see **table above**) in line upload and purge with virgin material until *P&P CREAM™ SACHET* out of the nozzle
4. Stop the group units allow the *P&P CREAM™* for few minute.
5. Load and purge with Natural material to eliminate all residue removed by *P&P CREAM™*
6. If the system is not completely cleaned repeat Phase 2 to phase 5
7. Then start the new production .

### HOT RUNNERS:

- After the cleaning of the cylinder,screw and nozzle,
- Increase the Temperature of the hot runners as much as is allowed by the Material inside.
- At the mould open or moulding repeat: phase 1 to phase 6

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## P & P CREAM in SACHET

### EXTRUSION LINES

Processing temperature: 70°C - 420°C

**Dosing: *P&P CREAM™ TABS* 2% of the barrel capacity (see table below)**

*TABS: 20 gr*

Single screw extruder, L/D 30			Twin screw extruder, L/D 40		
Screw mm	Barrel capacity	Nr Tabs	Screw in mm	Barrel capacity	Nr Tabs
40	1,0 kg	1	30	1,0 kg	1
50	2,0 kg	2	40	2,0 kg	2
60	3,0 kg	3	50	4,0 kg	4
70	5,0 kg	5	60	7,5 kg	7
80	7,5 kg	7	70	10,0 kg	10
90	10,0 kg	10	80	20,0 kg	20
100	12,5 kg	12	90	30,0 kg	30
120	22,5 kg	22	100	37,5 kg	37
150	47,5 kg	47	120	52,5 kg	57
200	82,5 kg	82	130	77,5 kg	77
			150	100,0 kg	100

### How to use *P&P CREAM™ TABS*

When cleaning keep the same parameters ( such as temperature, screw speed etc.) as the last material to be processed

### BARRELS , SCREWS AND DIES SYSTEMS

1. Upload and purge material (NATURAL or next production) in an amount to eliminate most the residue.
2. Empty the plasticizing group (**HOPPER AND BARREL**)
3. While the screws turning put the sachets into the throat of load (**WITHOUT OPENING**) ( see **table above**) in line upload and purge with virgin material until *P&P CREAM™ TABS* out from the die
4. Stop the group units allow *P&P CREAM™* for few minute.
5. Load and purge with virgin material to eliminate all residue removed by *P&P CREAM™*
6. If the system is not completely cleaned repeat Phase 2 to phase 5
7. Then start the new production.

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## P & P CREAM in SACHET

PET Extruder cleaning trial with P&P Cream and comparison with competitor's  
(on Husky PET Preform machine)

On February 14<sup>th</sup>, 2020 a first cleaning on H14 and H16 has been made.

We firstly used the colorant oil – the diluter generally used to dilute pigments – and afterward the standard product.

On H14 we did not experience any difference with a normal cleaning, whilst on H16 we had several difficulties.

Following the results after the second round of cleaning.



A third cleaning with the standard product was thus needed. We left it purge for 2 hours.

As a result, we had 50kg of preform purge and isolated 20 octa bins of greenish Clear preform. It is clear that the use of the oil worsens the cleaning.

In fact, even though the oil softens the incrustations up, the standard product it is not able to clean completely the screw, the extrusion and injection chambers from the color, which thus remains longer within the extruded material.

On April 29<sup>th</sup>, 2020 a trial using P&P cream has been made with the following results:

### 1<sup>st</sup> cleaning



### 2<sup>nd</sup> cleaning



On May 4<sup>th</sup>, 2020 - after 2 days of inactivity due to a bank holiday closure - the machine has been restarted.

No anomalies from the extruder purge has been found.

The material – except for the first purges of burnt/degraded material – comes out clean from the beginning.

Since the machine has been standing idle with the dryer empty and we couldn't eliminate the color and stop the machine clear, the hot runners were thus filled with colored material.

Therefore, during the injection phase, we have had around 10 printouts with decreasing greenish intensities.

Starting from August, after some cleanings limited to the hot chamber, through the support of the manufacturer Mr. Baldassarre, we moved on with the cleaning of hot runners and injection nozzles.

A further reduction of wastes deriving from the production has been observed.

Side benefits are also evident: the operators report that the machine starts more easily when “cold” and on older ones has been found a reduction in the number of obstructed cavities on which it is usually needed intervention with hammer and pick in order to unblock the nozzle from cold material.

It is also clear that thanks to the use of P&P Cream we have experienced a reduction in the number of cases of uneven preform color (lighter/darker color depending on the printouts).

Compared to 2019 when we had a total of 16 reporting, so far, we have 0 cases.

According to our Food Safety and Hygiene Manager instructions, test on 3 different productions has been made, collecting a sample on the first clear printout after the use of P&P Cream.

The samples has been analyzed in order to verify the absence of P&P cream residual from the surface of the preforms (immersion with abuse for 10 days at 60°C) and from the blown bottles (after filling with abuse for 10 days at 60°C).

The results obtained show that no compound deriving from P&P Cream has been detected on preforms and bottles.

So far, after the implementation of P&P Cream, reporting on color unevenness on preform from our customer went from 10 to 0 in the first 5 months of product use.