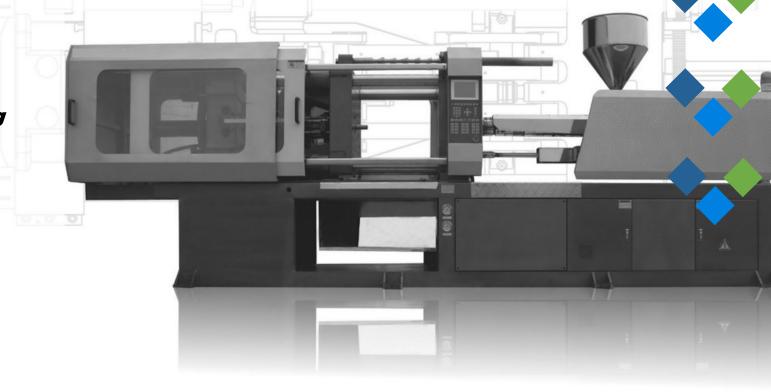


Reduce Machine Downtime, Reduce Wastage
Improve Productivity and Reject Rate - **Cost Saving** 











#### Screw and Barrel

The screw & barrel are primary parts in plastic injection molding process. They play a very important role in producing quality outputs. Typical dismantling of Screw & Barrel for cleaning can be a tedious task, it might take a minimum of half working day to few days depending on parts conditions and machine tonnage.

#### **Your Concerns**

**Maximize Productivity** 

**Minimize Machine Downtime** 

**Our Answer** 

Cost Saving! PurgeMax could help you improve 20% - 80% of your concerns above.









#### **PurgeMax Features**

- Fast Effective Cleaning
- Reduce Black Specks
- No Mixing or Weighing Required
- Soaking Not Required
- Flexible Temperature Range
- Odorless & Non Toxic
- Compatible With All Resins
- Harmless To Screw & Barrel
- RoHS & EN71 Compliance



Process	Temp. Range	Dosage	Hot Runner / Manifold	Commodity Plastics	Engineering Plastics	Super Engineering Plastics
Injection, Blow Mold, Extrusion	135°C to 400°C	PurgeMax Usage Chart	Yes	PE, PP, PET, PS, ABS, PVC	PC, PBT, Nylon, POM,	PEEK, PSU, PEI, LCP









#### Purging Guideline - Standard

Standard purging process does not require Purgemax mixing with purging resin. Soaking prior to purging is not required also.

Step 1:	Maintain processing	g profile for res	in in the machine.	(Minimum tem	perature 150°C)
l l	1 6	<i>,</i> ,		\	1

Step 2: Empty the screw and barrel of residual resin.

Step 3: \* Place PurgeMax directly into hopper and follow with purging resin immediately.

Step 4: \*\* Purging process can be done by purging or injection.
Step 5: Continuous purging until resin appears natural and clean.

Step 6: Purging process is complete, resume with standard procedures for next job.

\*\* For hot runner and manifold system, purge a small amount from the nozzle before proceed to open mold purging or injection.

**Note:** For PC material purging, user may consider mixing PurgeMax with purging resin in a plastic bag before loading them into barrel port. This alternative is due to fear of Occasional charging (screw unable to take in resin possibly due slipperiness upon contact with PC material.

Note: Small amount of smoke may appear during purging. Although not very common but it is a normal condition.

#### PurgeMax Usage Chart

Screw Diameter	Dosage		
Below 25mm - 45mm	1 -2 Packet		
46mm - 85mm	2-4 Packets		
86mm - 125mm	4-6 Packets		
126mm - 165mm	6-8 Packets		
166mm - 205mm	9-11 Packets		
206mm - 245mm	12-15 Packets		

How many kilograms of resin should be used for purging? First time user, prepare 50% of your average purging resin quantity used.

#### Example:

Normal purging resin quantity is 10kg. Prepare 5kg of your usual purging resin (crushing/original), follow the Purging Guideline and start purging process. Continuous purging until purging resin becomes natural and clean. The total quantity of purging resin used for purging are your wastage and the rest would be your saving.







<sup>\*</sup> With applications that require more than one PurgeMax (refer PurgeMax Usage Chart), place one PurgeMax into the hopper and follow with a small amount of purging resin and repeat until entire dosage has been added then charge the barrel with purging resin.

<sup>\*</sup> User can also place a small amount of purging resin before PurgeMax.



#### Purging Guideline - Blow Moulding

Step	1:	Maintain processin	g profile i	for resin in t	he machine.	(minimum temperature 150°C)
<u> </u>	_					

Step 2: Empty the screw and barrel of residual resin.

Step 3: \* Place PurgeMax directly into hopper and follow with purging material immediately.

Step 4: \*\* Purging process can be done by purging or injection.

Step 5: Continuous purging until resin appears natural and clean.

Step 6: Purging process is complete, resume with standard procedures for next job.

**Note:** Small amount of smoke may appear during purging. Although not very common but it is a normal condition.

#### PurgeMax Usage Chart

Machine Capacity	Dosage
1-3 Liter	1 Packet
4 - 6 Liter	2 Packets
7 - 10 Liter	3 Packets





<sup>\*</sup> With applications that require more than one PurgeMax (refer PurgeMax Usage Chart), place one PurgeMax into the hopper and follow with a small amount of purging resin (layering) and repeat until entire dosage has been added then charge the barrel with purging resin.



#### Purging Guideline - Extrusion

Step 1:	Maintain proces	cing profile f	for racin in the	machine 1	minimum tai	mnerature 150	٥Cl
Step 1.	ivialitatii proces	sing profile i	Of Tealth III the	macimie.	(IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Tiperature 130	$\cup_{j}$

Step 2: Empty the screw and barrel of residual resin.

Step 3: \* Place PurgeMax directly into hopper and follow with purging material immediately.

Step 4: Continuous purging until resin appears natural and clean.

Step 5: Purging process is complete, resume with standard procedures for next job.

\* Follow the dosage chart and double the quantity. This is because barrel capacity are commonly larger than injection molding's.

**E.g.** screw diameter is 120mm = 3 packets + 3 (total 6); initiate purging process and observe result. If purging resin is very dirty user can add another 3 packets of Purgemax and repeat the purging process.

\* For extreme/stubborn carbon, mix 1 packet PurgeMax per 3 Kg purging resin and start purging process.

Note: User doesn't have place 4 packets at once, user may consider "layering" Purgemax in barrel

Note: For twin screw purging, user may add 50% to the dosage required.

Note: Small amount of smoke may appear during purging. Although not very common but it is a normal condition.

#### PurgeMax Usage Chart

	_
Screw Diameter	Dosage
Below 25mm - 45mm	2 Packet
46mm - 85mm	4 Packets
86mm - 125mm	6 Packets
126mm - 165mm	8 Packets
166mm - 205mm	10 Packets
206mm - 245mm	12 Packets

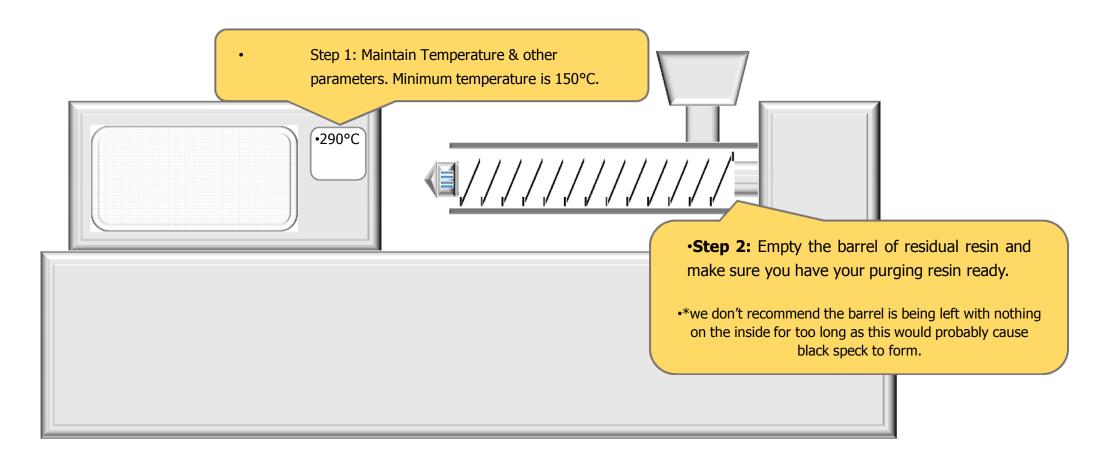






# •PurgeMax ®

•High Performance Cost Saving Purging Solution









# ·Layering Method • PurgeMax ® •Purging resin • High Performance Cost Saving Purging Solution Purgemax Purging resin Purgemax •Step 4: Start purging process. Purging resin •i) Hot Runner Purging — purge a tiny amount Hopper from the nozzle first and then proceed to open mould purge.

- •**step 3:** Follow the dosage guideline and place *PurgeMax* into the hopper
- follow by purging resin. \*please note that there are 10gram and 18.5 gram packing.
- •i) To prevent occasional charging
  •issue, user may choose to tear
  open/cut the top of the packet(s)
  and slowly pour the Purgemax liquid
  into the barrel hole when purging
  resin is being feed.
- •ii) For large tonnage machines, charging issue is not common so above method is optional.
- •iii) For machines require more than 1 packet of Purgemax, user may consider layering Purgemax between a handful of purging resins.
- •iv) To purge PVC material, you are advised to not throw whole packet into the barrel as our plastic packing is made of PE/PET.

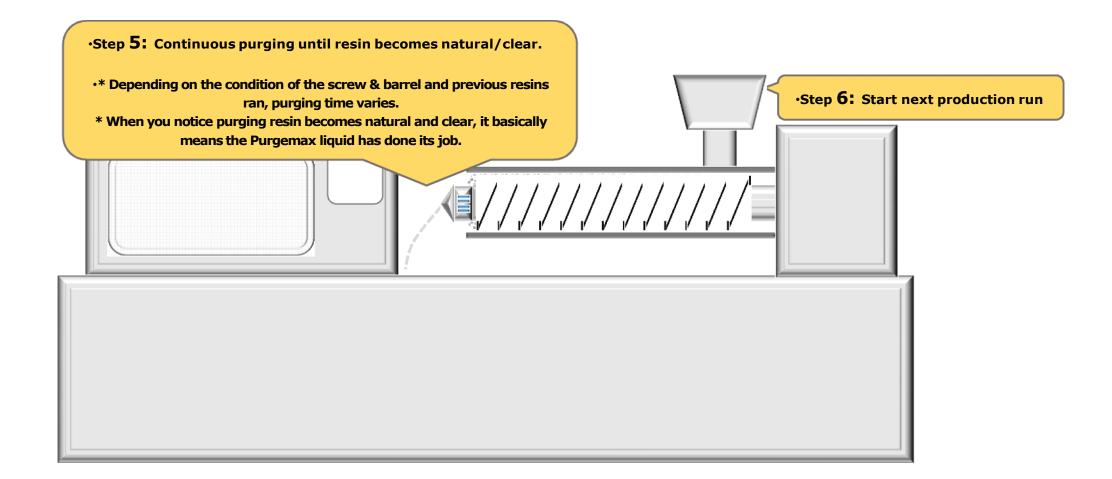
  PE and PVC combined could cause difficulties. Follow (i) method above instead.









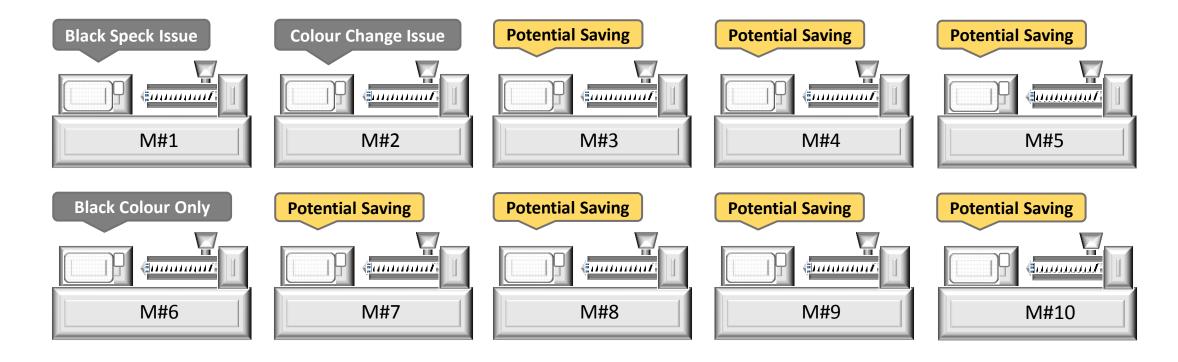






#### **Maximize Savings**

In order to maximize savings (time, purging material, reject rate etc.), we strongly recommend that PurgeMax be used on as many machines as possible. We have had customers using Purgemax only on selected machines with black speck and color change issues and the savings are minimal. But once they realize that the cost of Purgemax is not a burden for them, they can use Purgemax to the fullest and some even use Purgemax as a maintenance product to clean screw & barrel once a week.











### **Contact Us**

HIGHLAND MANAGEMENT CONSULTING LTD.

office@purgemax.eu

t.: +36 30 641 0117



