Counting The Cost To Purge

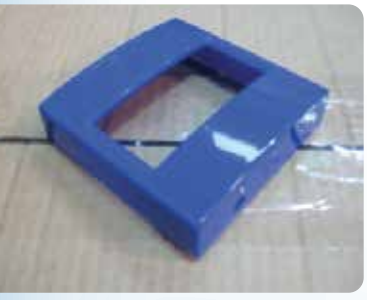
Many plastic processors are put of using a purging compound because it is perceived as being too expensive when compared to using scrap materials of virgin polymers. Purging compounds do have a higher cost per kilo but on balance they do offer many advantages over other purging methods.

Before we can fully appreciate the cost to purge we need to look at a the factors that will help with this comparison.

- What scrap is being produced per machine and is the scrap caused by colour contamination of black specking
- What is the cost of each individual component or price per meter for extrusions
- What is the cost per metric tonne for the wasted raw material
- What is the hourly rate for a specific machine

Using this information we can create this example of a cost to purge calculation where we take the actual cost of down time and scrap mouldings and compare to the low cost of purchasing Dyna-Purge. This is based on a 150te moulding machine 320 gram barrel capacity.

Purging with Grade DPM	**£**	**Purging with Polypropylene**	**£**
1kg Dyna-Purge @ £8.00kg	8.00	6 kgs PP @ £1.25 kg	7.50
.5 kgs of PP to flush @£1.25 kg	.63	30 minutes to purge	15.00
Assumed machine rate £30 per hour		Assumed machine rate £30 per hour	
5 minutes to purge @ £30 hr	2.50	20 scrap mouldings x 40p	8.00
5 minutes to flush @ £30 hr	2.50		
Total Purge cost	**13.63**	**Total Purge cost**	**30.50**
Time taken to change colour 10 minutes		Time taken to change colour 30 minutes	



This simple calculation takes into account the time taken to purge and measures this against using standard resins. It's clear in this calculation that even though the polypropylene is vastly cheaper per metric tone the Dyna-Purge far more cost effective overall.

Saving time and reducing scrap levels are the basic principle of Dyna-Purge Using Dyna-Purge in small amounts on a regular basis prevents issues of carbon build up which is the cause of black specking.

Dyna-Purge grades include:

Find your solution

Selecting the best Dyna-Purge grade is simple.. Match your requirements to the chart below. For optimal grade recommendations, consult with your Dyna-Purge representative:

Grade	Injection Molding		Extrusion				Other Processes		Processing Temperatures			
	Cold Runner / Conventional	Hot Runner Systems	Profile	Sheet	Cast Film	Blown Film	Compounding	Blow Molding	Low (°F)	High (°F)	Low (°C)	High (°C)
M	●	●	●	●			●	●	350	600	177	315
K	●	●	●	●	●		●		290	550	143	287
P	●	●							320	575	160	302
F	●	●					●		320	575	160	302
E2	●	●	●	●	●		●		575	715	302	379
V	●		●	●			●		320	400	160	204
C	●	●	●	●			●	●	380	590	193	310
SF			●	●	●	●			320	575	160	302
X			●	●	●		●		320	575	160	302
B								●	320	575	160	302

Note: Required minimum clearance for M, V - 0.030 inch (0.75mm) and for P, K, X, B - 0.025 inch (0.65mm)

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