

Color Change Cost Analysis

Description

The following cost analysis chart represents a color change of a black color PP using no purging compound compared to using Ultra Purge CE-E grade on a 50 mm screw blow molding machine with a 5 liter accumulator.

Colorant - BLACK	Units	Trial 1 w/o Purging Compound	Trial 2 Ultra Purge
Lbs of HDPE	Lbs	500	100
Cost of HDPE	USD/Lb	0.67	0.67
Lbs of Ultra Purge CE-E	Lbs	0	5
Cost of Ultra Purge CE-E	USD/Lb		30.00
Total Purging Material Cost	USD	335.00	217.00
Time required for purging	Hours	7	1.5
Down-Time/Lost Production Hourly Cost	USD	500.00	500.00
Total Down-Time Cost	USD	3,500.00	750.00
Total Cost per Purging	USD	3,835.00	967.00
Total amount in USD saved per color change using Ultra Purge	USD	2,868.00	

Conclusion

As indicated above, Ultra Purge noticeably reduces the cost of the purging material. The trial also confirms that using Ultra Purge significantly reduces the production down time. The down time and lost of production is usually the most important component in the color change break-down cost analysis.

Reduction Purging Material
Reduction Down-Time

35%
79%

