

## Color Change Cost Analysis

### Description

The following cost analysis is related to a color change performed with a 500 Ton injection molding machine purging Black PS with the Ultra Purge High-E. Trial 1 was performed using no purging compound. Trial 2 was performed using Ultra Purge High-E grade.

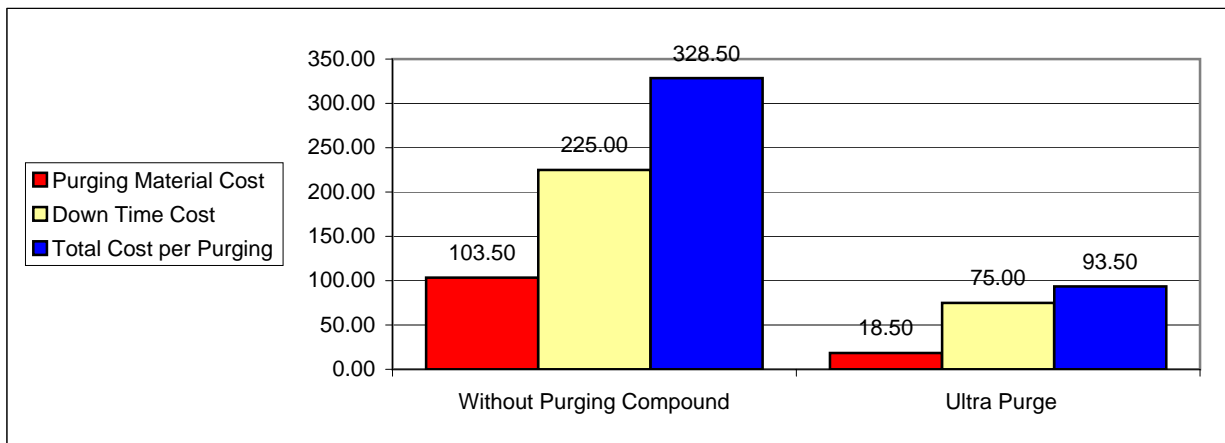
Colorant - BLACK	Units	Trial 1 w/o Purging Compound	Trial 2 Ultra Purge
Lbs of PS	Lbs	115	5
Cost of PS	USD/lb	0.90	0.90
Lbs of <b>Ultra Purge High-E</b>	Lbs	0	2
Cost of <b>Ultra Purge High-E</b>	USD/lb		7.00
<b>Total Purging Material Cost</b>	<b>USD/lb</b>	<b>103.50</b>	<b>18.50</b>
Time required for purging	Hours	0.75	0.25
Down-Time/Lost Production Hourly Cost	USD	300.00	300.00
<b>Total Down-Time Cost</b>	<b>USD</b>	<b>225.00</b>	<b>75.00</b>
<b>Total Cost per Purging</b>	<b>USD</b>	<b>328.50</b>	<b>93.50</b>
<b>Total amount in USD saved per color change using Ultra Purge</b>	<b>USD</b>	<b>235.00</b>	

### Conclusion

As shown in the above cost analysis Ultra Purge was very efficient in reducing the cost of the purging material but it was even more efficient in reducing production down time. The down time and lost of production is usually the biggest component in the color change break-down cost analysis.

**Reduction Purging Material**  
**Reduction Down-Time**

**82%**  
**67%**



Trial Picture

