



## Color Change Cost Analysis Hot Runners

### Description

The following cost analysis chart represents a color change from red HDPE to white HDPE using no purging compound compared to using Ultra Purge P-O grade on a 300 Ton injection molding machine. Trial 1 was performed using no purging compound. Trial 2 was performed using Ultra Purge P-O grade. Ultra Purge P-O was used to clean the injection unit and also the hot runners by making part out of purging compound (see picture below)

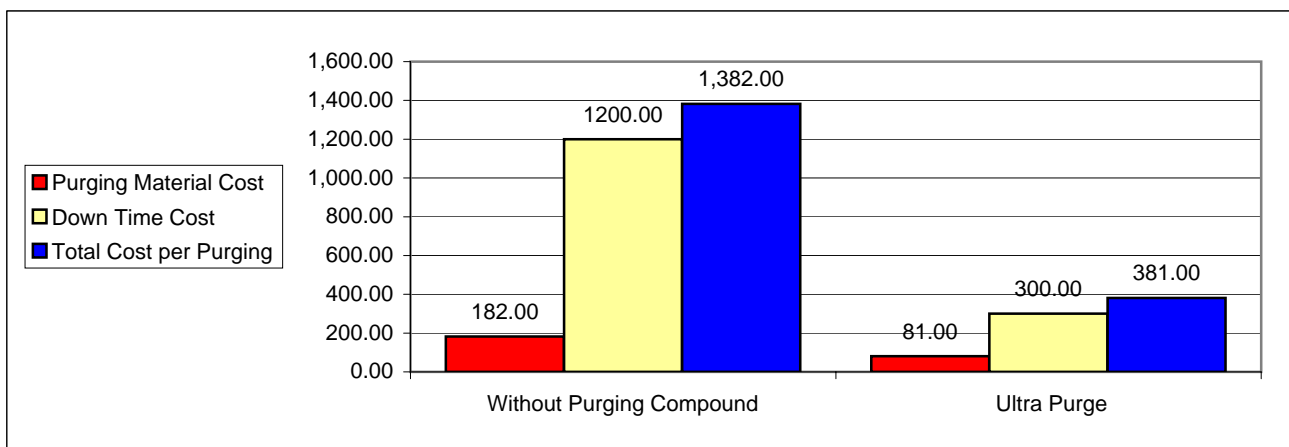
Colorant - RED (Color Matrix)	Units	Trial 1 w/o Purging Compound	Trial 2 Ultra Purge
Lbs of HDPE	lbs	280	60
Cost of HDPE	USD/lb	0.65	0.65
Lbs of <b>Ultra Purge P-O</b>	Lbs	0	7
Cost of <b>Ultra Purge P-O</b>	USD/lb		6.00
<b>Total Purging Material Cost</b>	<b>USD/lb</b>	<b>182.00</b>	<b>81.00</b>
Time required for purging	Hour	4	1
Down-Time/Lost Production Hourly Cost	USD	300.00	300.00
<b>Total Down-Time Cost</b>	<b>USD</b>	<b>1200.00</b>	<b>300.00</b>
<b>Total Cost per Purging</b>	<b>USD</b>	<b>1,382.00</b>	<b>381.00</b>
<b>Total amount in USD saved per color change using Ultra Purge</b>	<b>USD</b>	<b>1,001.00</b>	

### Conclusion

As indicated above, Ultra Purge noticeably reduces the cost of purging material. The trial also confirms that using Ultra Purge significantly reduces 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 Purging Time**

**55%**  
**75%**



### Trial Pictures

