Fast and beautiful

Gelcoats

Nouryon

Curing gelcoats

Gelcoats serve as a **protective** and **cosmetic** layer to make a reinforced polyester laminate more durable. To achieve a top-class finish on a **fast** and **proper** way, there are several things for an operator to take care about or to considerer.

- The use of a good mold and mold preparation (reduce polishing)
- Good working conditions (18-25°C)
- Applying the right layer thickness (protection and sagging out)
- Using a veil or tissue as intermediate layer between gelcoat and reinforcement

Drying time and re-work like polishing are very time consuming and can be prevented by selecting a peroxide which helps to meet the desired top-class finish in a fast way; the use of **Butanox® P-50!**

- Contains a very low amount of water
- Free of polar solvents

Butanox P-50 - improved gloss

Butanox P-50

- Gives compared to Butanox M-50 a faster hardness build-up
- Results in less fiber print through
- Gives an improved surface gloss

Allowing

- To skip or reduce the polishing step
- Leaving out the use of a veil/tissue

Butanox P-50

Butanox M-50

Pictures above: the difference between surface gloss when curing an isophthalic gelcoat with Butanox P-50 vs. Butanox M-50, which is the standard of the industry. The pictures above serves as an indication. The results in reality might be different depending on the circumstances and type of used gelcoats.

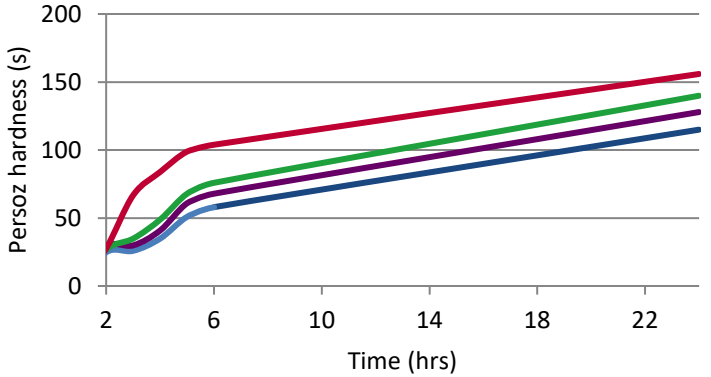
Butanox P-50 - faster hardness build-up

Butanox P-50

- Gives compared to Butanox M-50 a much faster hardness build-up

Allowing

- A faster time to lamination
- To save time and increase production capacity
- For better mechnical properties
- To reduce styrene emissions (fast cure)



Time (hrs)	Butanox LPT-IN	Butanox LA-IN	Butanox M-50	Butanox P-50
1	0	0	0	0
2	25	29	27	28
3	26	30	35	67
4	35	41	49	84
5	51	61	68	99
6	58	68	76	104
24	115	128	140	156

Graph: the effect of different peroxides on Persoz hardness build-up of a pre-accelerated ISO/NPG gelcoat with intake levels of 1.8 phr. organic peroxide. These results give an indication how different peroxides behave compared to each other and can be used as guidance for alternative cure system selection.

Butanox P-50 - Summary

Butanox P-50
- Contains a very low amount of water
- Is free of polar solvents
- Gives compared to Butanox M-50 a faster hardness build-up and improved surface gloss

Allowing the operator
- To apply the back-up laminate faster
- Leaving out the use of a veil/tissue

Resulting in
- Increase of production capacity (shorter cycle time and less re-work)
- Improved mechanical properties of the gelcoat (hardness)
- Lower styrene emissions on the workshop (faster cure)

Thank you

Nouryon