

IncroMax 100

A new slip additive for polycarbonate



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IncroMax 100 – what is it?

- A proprietary additive developed by Croda
- Suitable for use in polycarbonate, including polycarbonate blends
- Reduces surface friction and mold release force
- Improves quality, reduces waste and saves money

Problems in PC processing

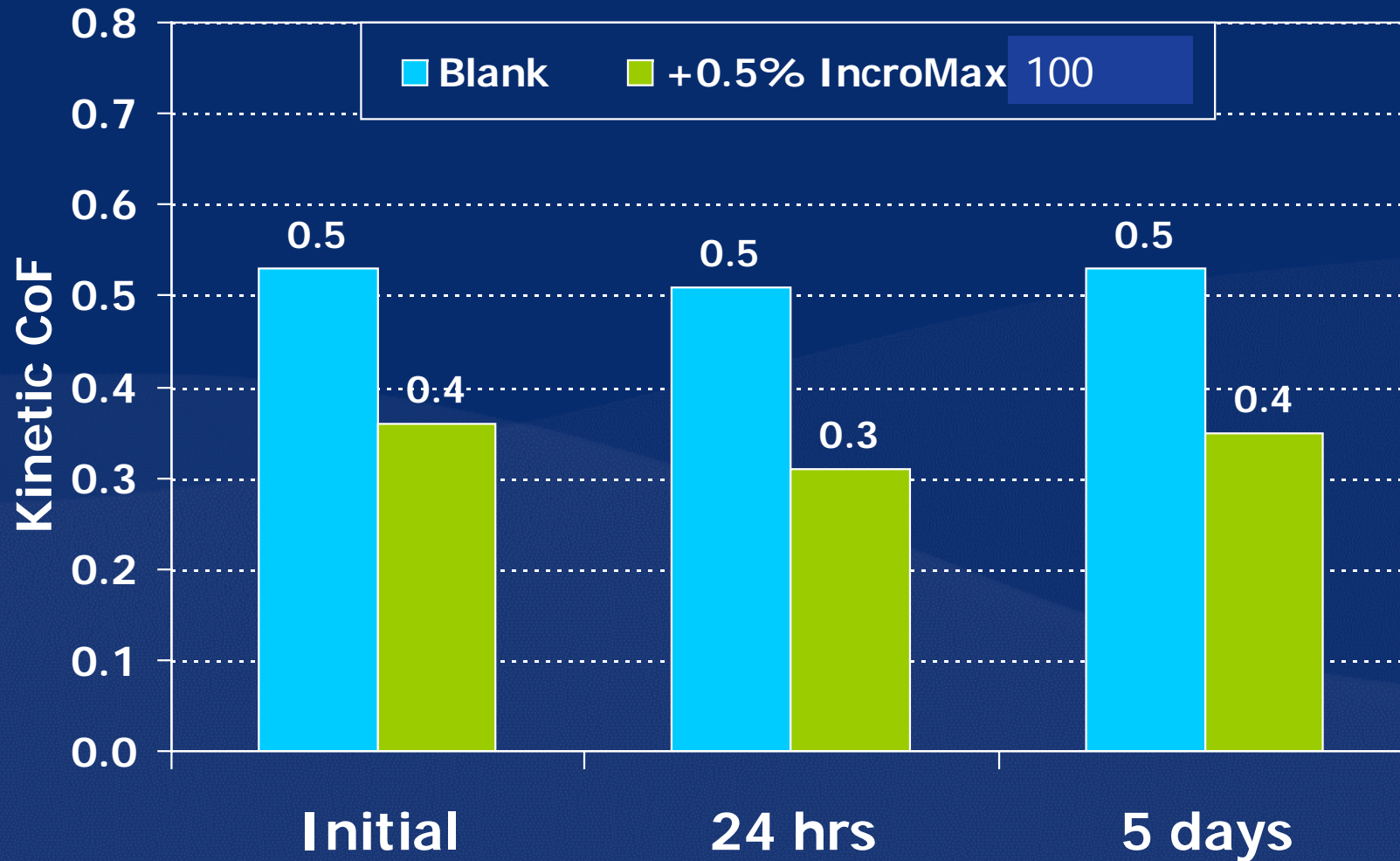


- PC exhibits high melt viscosity and limited melt flow
- Difficult to mold into very large or very thin walled parts
- IncroMax 100 alleviates these problems

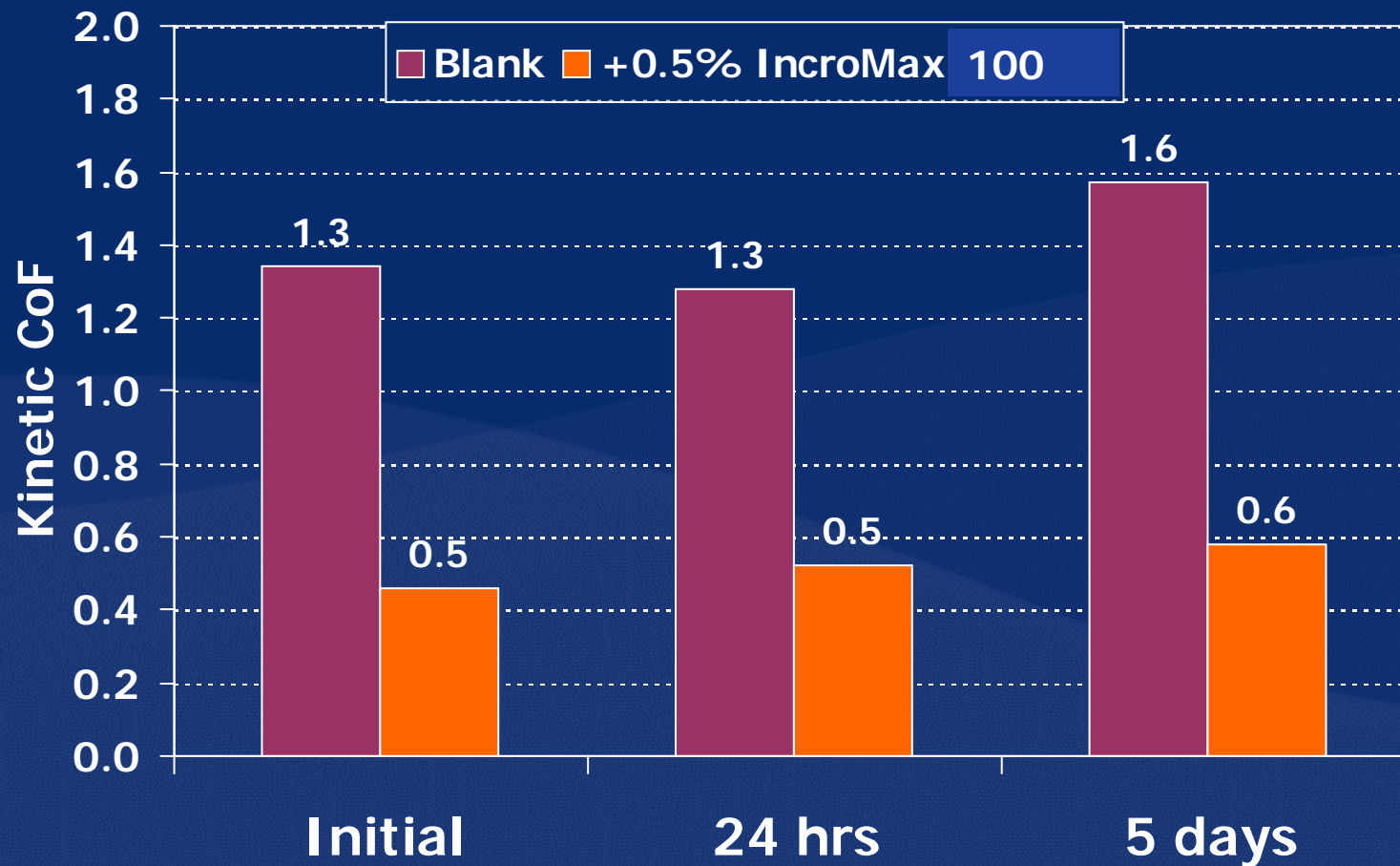
IncroMax 100 – what does it do?

- Works by migrating to the surface of the polycarbonate
- Migrates fast to provide instant mold release properties
- Long lasting friction reduction
- Reduces surface friction by up to 60%
- Reduces mold release force by up to 58%
- Improves pigment dispersion and melt flow during processing

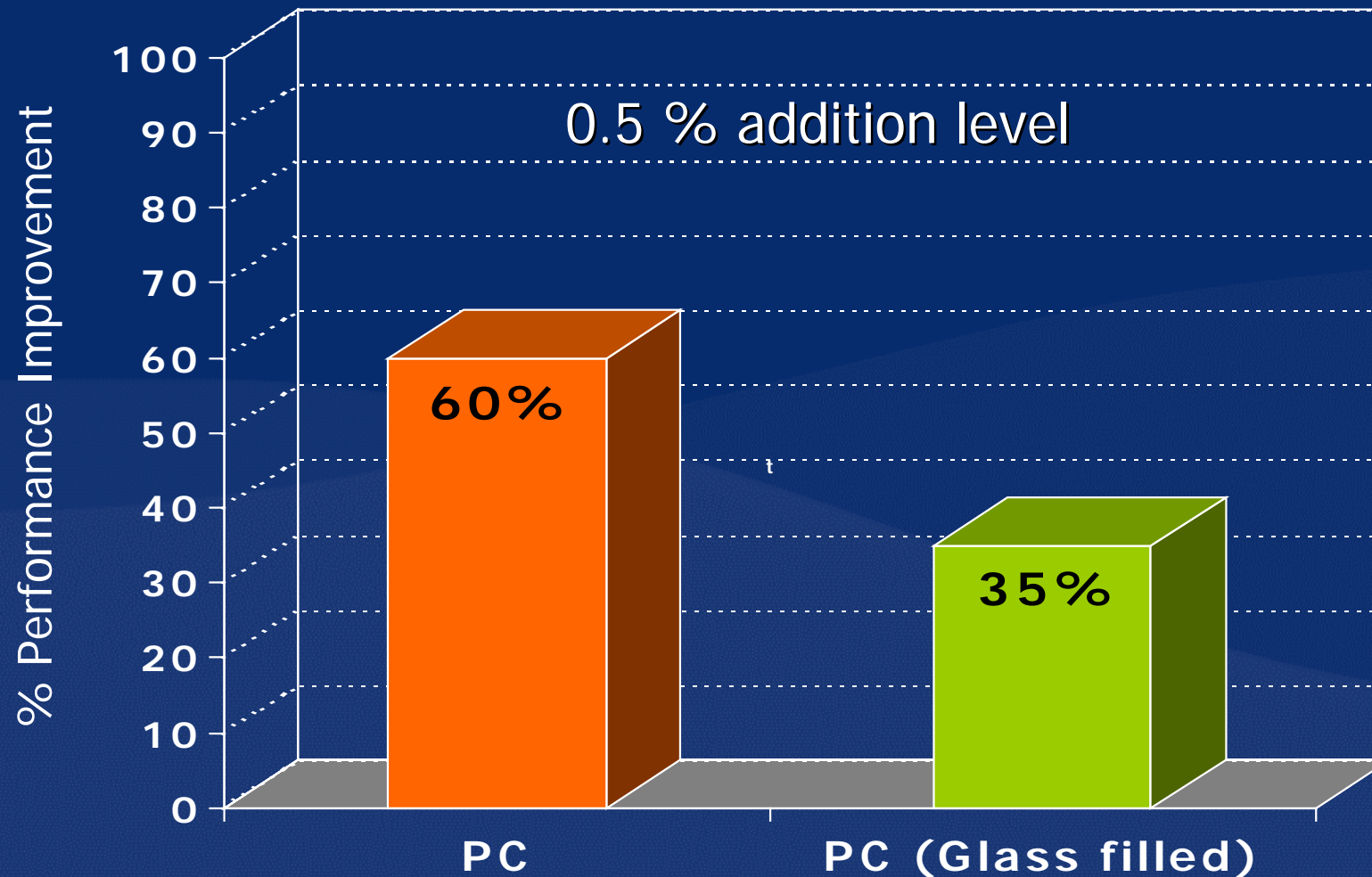
Effect of IncroMax 100 in PC (20% glass filled)



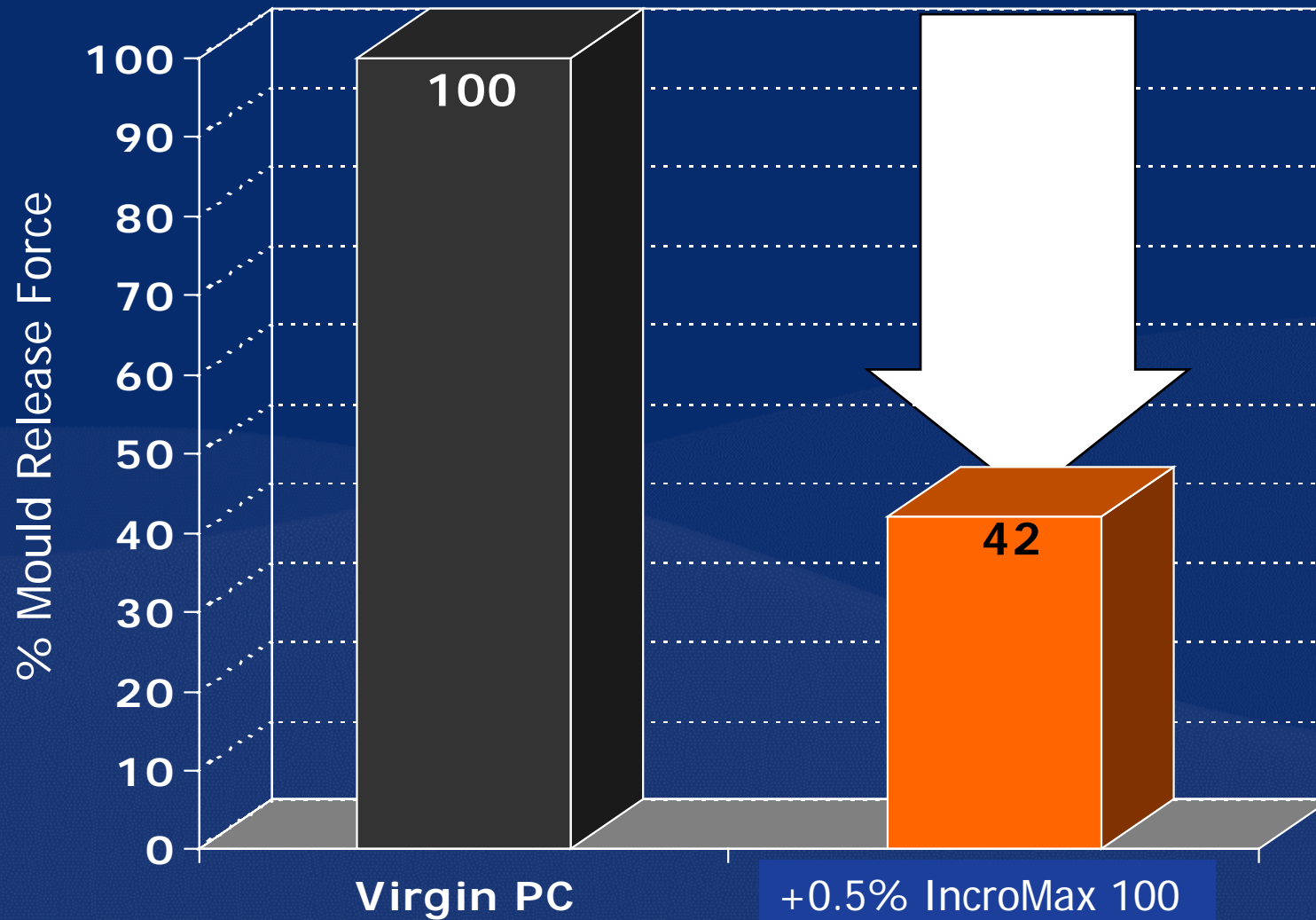
Performance of IncroMax 100 in PC Lexan LS-2



Slip performance improvement of IncroMax 100 in PC grades



Mold release performance in PC



Colour and Clarity

Additive	L	a	b
Virgin PC	95.7	0.03	0.60
+0.5 IncroMax 100	95.7	0.03	0.65

No significant effect on colour & clarity

Addition

- Initial addition levels of 0.5% are recommended
- Via masterbatch
- Via direct addition

Incorporation Tips

- During dosing keep the material below its melt temperature of 50°C
- On initial runs purge machinery for at least 30 minutes with polymer containing IncroMax 100
- Hopper feeders must be kept cool (i.e. below 50°C)
- Close all vents otherwise molten IncroMax 100 may exude from the barrel
- Use twin screw co-rotating type extruder

Summary

- Slip improvement (0.5% addition level)
 - *PC (20% glass filled)*
 - **35% improvement**
 - *PC (clear GE Lexan LS2 Grade)*
 - **60% improvement**
- Mold Release improvement
 - *Clear PC with 0.5% addition*
 - **58% improvement**
- No significant effect on colour and clarity

