

## TECHNICAL BRIEF

# DRIERS FOR WATERBORNE COATINGS

Alkyd based waterborne coatings are the future. The development of this technology, whether as alkyd emulsion or through hybridization, has produced resins/coatings that rival the properties provided by traditional solventborne resins/coatings. Being alkyd based, they are still dependant on the auto-oxidative drying process. The properties of water as a solvent and the often complex nature of formulations can have significant influences on the drying process. The use of traditional driers used for solvent based systems can cause a range of problems including: poor initial drying, poor storage stability, resin incompatibilities, surface defects and low gloss.

*DURA Chemicals has developed a number of single metal driers and driers blends for use specifically in waterborne coatings.*

- Duroct® WR Series – 10% Co, 6% Co, 6% Mn, 6% Ca and 12% Zr
- Duroct® Lithium WR 2% NDA – VOC-free drier
- Duroct® WDX Series – 5% Co and 8% Mn
- DriCAT® 10 – Mixed Cobalt / Potassium drier
- DriCAT® 506 – Mixed metal blend (Co/Ba/Zr)
- DriCAT® 507 – Mixed metal blend (Co/Li/Zr)
- DriCAT® 509 – Mixed metal blend (Co/Ba/Zr)
- DriCAT® 508 – Cobalt-free drier

These driers are designed for:

- **Compatibility – ease of use**
- **Stability – reduced loss-of- dry**
- **Effectiveness – efficient drying, color and hardness development**

**DURA Chemicals** is actively developing the next generation of single metal and driers blends for use in this ever expanding area of coatings.

**DriCAT® 2705FW** is a very low-concentration high-activity Manganese based drier, having a high auto-oxidative potential showing minimal loss over time on storage and minimal effect on the long term discoloration of the finished article. This new generation of drier works in combination with Duroct® Lithium WR 2% NDA and Zirconium WR 12% for maximum performance.