



## EXOCOAT 143 (Development Product) Easy to Clean Coatings

EXOCOAT 143 is a new developed resin for durable easy to clean, dirt resistance, anti-graffiti and strong water repellency smart coatings.

### EXOCOAT® in Coatings

The EXOCOAT range of raw materials for coatings is specifically developed for smart and functional coatings, to obtain functions like easy to clean, superhydrophobic, superhydrophilic, anticorrosive, heat reflective, anti-microbial, anti-fogging and self-cleaning. The technology developed comprises advanced inorganic and hybrid sol-gel-technology, organometallic polymers and nano materials for solvent and water based systems.

### EXOCOAT 143

EXOCOAT 143 is a unique solvent based resin (60% solids in Butyl acetate) that can be applied in coatings for metal, plastic and glass substrates. When applied at very low layer thickness of 0.5 to 2µm it provides the surface with a protective hard coating that shows **durable easy to clean, dirt resistance, anti-graffiti and strong water repellency** properties.

The unique feature of EXOCOAT 143 is that it covalently bonds with the substrate resulting in a very durable finish. EXOCOAT 143 can be used as standalone resin or might be formulated with other raw materials like white and colored pigments, organic resins, fillers and additives. The use of water based raw materials should be avoided.

### EXOCOAT 143 in formulated coatings

EXOCOAT 143 was tested in a coating and applied on polycarbonate, PMMA, ABS, metal and glass substrates as a clear thin film. The coating was room temperature dried for 8 hours.

Performance properties of a EXOCOAT 143 based coating system:

Layer thickness µm	2.0
Adhesion <sup>1)</sup> on PC	Pass
Adhesion on PMMA	Pass
Adhesion on ABS	Pass
Adhesion on Metal	Pass
Adhesion on Glass	Pass
Pencil hardness metal	>6H
Contact angle H <sub>2</sub> O	108°
Contact angle Hexadecane	57°
Dirt resistance Coffee/MEK	Pass/Pass
Permanent marker test	Cannot be written on, no adhesion of ink
OT bend test	Pass

<sup>1)</sup>According to ISO 2409, Pass = 0



Compared to other hydrophobic coatings the unique feature of 143 based systems is its durability. It can sustain mechanical abrasion, chemical attack and is UV stable. **Target applications** for EXOCOAT 143 would be high performance industrial coatings such as protective, coil, marine and automotive coatings.



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