# EBECRYL® 4900 & 4950

For **Dual Cure Thermoformable Film** applications (Automotive | Consumer Electronics | Household Appliances)



**EBECRYL® 4900 & 4950** are innovative dual cure binders that combine conventional and acrylate chemistries in one system. Leveraging benefits from both chemistries allows formulators to generate storage-stable thermally-precured films with excellent formability. This system is an especially good fit for various thermoforming coating applications to produce structural and functional plastic parts.

# **Value Proposition**

- Excellent formability
- Storage-stable pre-cured film
- Excellent adhesion to most plastics for target applications
- Outstanding elasticity allowing deep draws and emboss before radical polymerization
- Tack-free and non-blocking after thermal curing step
- After radical polymerization, coatings offer good performance properties meeting many OEM standards for chemical, stain, abrasion and scratch resistance
- Shorter thermal cure cycle VS. conventional only



### **Comparison of Properties in Different Coating Systems**

#### **Coating Properties After Thermal Curing**

THERMOFORMABILITY	UV	Comparative	Combination of
(Substrate: Veralite 200 (PETG))	Monocure	Dual Cure	EBECRYL® 4900 + 4950
Cylinder 1 cm (50% elongation)	Pass	Fail	Pass
Cylinder 3 cm (150% elongation)	Fail	Fail	Pass
Cylinder 5 cm (200% elongation)	Fail	Fail	Pass
Cylinder 8 cm (300% elongation)	Fail	Fail	Pass

#### **Coating Properties After UV Curing**

AUTOMOTIVE STAINS				
(Substrates: ABS Magnum 36 and PC Lexan 9030)	516, ABS/PC T65, 85XF	UV Monocure	Comparative Dual Cure	Combination of EBECRYL® 4900 + 4950
Suntan lotion test (PV3964, VW, 24 hours @ 80°C)	Aspect	Film attacked, gloss decrease	No change	No change
	CHA after test	5	5	5
Hand cream test (PV3964, VW, 24 hours @ 80°C)	Aspect	Film slightly attacked	No change	No change
	CHA after test	5	5	5
Sunscreen / insect repellent test (~GMW14445)	Aspect	Blisters	Film slightly attacked	No change
	CHA after test	-	5	5

TABER HAZE	UV	Comparativo	Combination of
(Test method: CS10F, 500g load)	Monocure	Comparative Dual Cure	EBECRYL® 4900 + 4950
100 cycles	5.2	6.4	4.5
300 cycles	14	12.2	10.6
500 cycles	22	19.1	16.2

For further details on this product and starting-point formulations, please reach out to our technical experts.

# To browse through our portfolio online on our new product finder, please scan the QR code.

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## EBECRYL® 4900 and 4950 are available to customers globally.

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