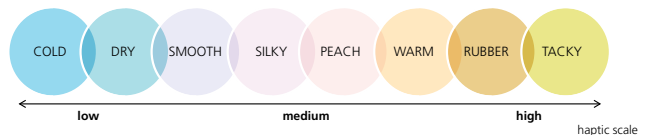
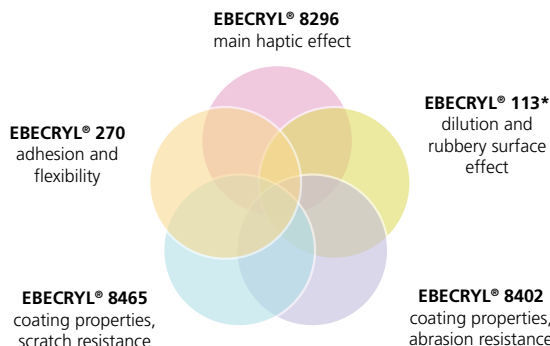


Energy Curable Resin for Soft-Touch EBECRYL® 8296

In customer electronics and industrial plastics, there is a growing need for coatings to provide specific surface effect such as a particular tactile or haptic response or “feel” that is coupled with chemical, scratch, and abrasion resistant properties. Cytec has developed an innovative special effect resin that makes it possible to obtain a broad range of tactile or haptic “feels” within 1k formulation, meaning easier and low/limited VOC content. EBECRYL® 8296 is an aliphatic urethane triacrylate that offers a unique haptic or tactile “feel” upon cure. Cured films of EBECRYL 8296 can be characterized as “wet” feeling after exposure to ultraviolet (UV) or electron beam (EB). EBECRYL 8296 is just one of many innovative products offered by Cytec.

HAPTIC RESIN				
	Description	Key Features & Benefits		
EBECRYL® 8296	Aliphatic Urethane Triacrylate	<ul style="list-style-type: none"> • Brings haptic effect • “Wet” feel – soft feel - after cure 		
Performance Oligomers Modifiers				
EBECRYL® 270	Aliphatic Urethane Diacrylate	<ul style="list-style-type: none"> • Improves adhesion • Increases flexibility 		
EBECRYL® 8402	Aliphatic Urethane Diacrylate	<ul style="list-style-type: none"> • Improves abrasion resistance • Provides “rubbery” effect 		
EBECRYL® 8465	Aliphatic Urethane Triacrylate	<ul style="list-style-type: none"> • Improves stain resistance • Increases chemical resistance and toughness 		
EBECRYL® 113	Aliphatic Monoacrylate Diluent	<ul style="list-style-type: none"> • Provides “rubbery” effect • Excellent flexibility • Improves adhesion to a variety of substrates 		
RESIN	Viscosity (cP)	Tg (°C)	Elongation (%)	Young's Modulus (psi)
EBECRYL® 8296	2400 (60°C)	-1	18	1320
EBECRYL® 270	3000 (25°C)	38	62	2700
EBECRYL® 8402	12500 (25°C)	45	55	3340
EBECRYL® 8465	2100 (60°C)	36	50	11300
EBECRYL® 113	120 (25°C)	6	240	300

Ebecryl products influence on haptic scale



* Not registered for APAC, ww registered monomers giving similar effects are EBECRYL® 110, 113, 114, 1039, 145

Starting Point Formulaton

Haptic Feedback	Peach–Silky ⁽¹⁾	Warm–Peach	Peach–Silky	Rubber–Warm	Tacky–Rubber ⁽²⁾
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Heptic Resin

EBECRYL® 8296	17	15	31.5	35	65
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Coating Modifiers

EBECRYL® 8465	15	13		30	
EBECRYL® 8402			27		
EBECRYL® 113	15	13	27	30	30
Syloid® 162 C (Matting agent)	4.5	4	8		
Acematt® TS 100 (Matting agent)	1	1	2		
Decosoft® 7D (Rubber particles)		2.5			

Photoinitiator

ADDITOL® HDMAP ²	2.5	2	4.5	5	5
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Solvent Recommendation for Spray

IPA/Dowanol PM (75/25)	45.0	49.5			
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Performance Overview

Viscosity at 25°C, cP (Cone and plate)	<200	<200	8800	3800	5500
Solvent Resistance (Acetone double rubs)	>100	>100	<25	>100	>100
Cross Hatch Adhesion on PC, % (610 tape)	100	100	100	100	100
Persor hardness on glass (seconds)	n/a	n/a	n/a	28	61

1. CF4 viscosity: 23 s. at R, Target coat weight: 50 µ dry, PC substrate, Flash-off (ventilated oven): 15 min. at 40°C, Curing: 4 x 5 m/min., Ga 40 W/cm + Hg 120 W/cm lamps.
2. 100 µ dry* on polycarbonate substrate, cured 4 x 5 m/ min. with 120 W/cm Hg lamp, using 200 µ doctor blade, application at 50°C (formulation, substrate and doctor blade brought at 50°C beforehand)

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