

## Crash-Proven Safe Drive-away Times

# BETASEAL™

## AUTO GLASS URETHANE ADHESIVES

Crash testing is the only way to prove an adhesive system's safe drive-away claims. BETASEAL™ safe drive-away times are confirmed through actual vehicle crashes. We use the same adhesives and procedures for our tests that you would for an aftermarket replacement.

### Advanced cure

Advanced-cure urethane adhesive is a one-component material with enhanced chemical crosslinking to speed bonding for safe drive-away times. Advanced-cure reinforce isotropic network adhe-

sive (RINA) technology reduces dependence on moisture. RINA creates uniform and reinforced properties throughout the bead for high initial green strength, resulting in faster, safe drive-away times.

### BETASEAL Express and BETASEAL 0<sup>ne</sup>

Safe drive-away time  
FMVSS 212 with passenger side air bag

Temperature	Time
0°F (-17°C) and above	1 Hour



### Conventional cure

Conventional-cure adhesives rely on temperature, humidity and time to cure. The water in the air causes a chemical reaction in the adhesive. The

adhesive bead cures from the outside to the center as the moisture diffuses into the adhesive. The curing bonds the adhesive to the substrates.

### BETASEAL U-400HV

Safe drive-away times  
FMVSS 212 with passenger side air bag

Relative Humidity (%)	Temperature								
	40°-50°F (4.4°-10°C)	50°-60°F (10°-15.5°C)	60°-70°F (15.5°-21.1°C)	70°-80°F (21.1°-26.6°C)	80°-90°F (26.6°-32.2°C)	90°-100°F (32.2°-37.7°C)	100°-110°F (37.7-43.3°C)	>110°F (>43.3°C)	
> 90	7 Hours	5 Hours	5 Hours	3 Hours	2 Hours	2 Hours	2 Hours	2 Hours	
70-90	8 Hours	6 Hours	5 Hours	3 Hours	2 Hours	2 Hours	2 Hours	2 Hours	
50-70	8 Hours	7 Hours	5 Hours	4 Hours	3 Hours	2 Hours	2 Hours	2 Hours	
30-50	24 Hours	12 Hours	7 Hours	5 Hours	3 Hours	3 Hours	3 Hours	2 Hours	
10-30	24 Hours	20 Hours	12 Hours	7 Hours	6 Hours	5 Hours	5 Hours	4 Hours	

Below 40°F (4.4°C) use BETASEAL™ Express or BETASEAL 0<sup>ne</sup>



## BETASEAL™ U-418 and U-418HV Primerless to Auto Glass

Safe drive-away times  
FMVSS 212 with passenger side air bag

Relative Humidity (%)	Temperature							
	40°-50°F (4.4°-10°C)	50°-60°F (10°-15.5°C)	60°-70°F (15.5°-21.1°C)	70°-80°F (21.1°-26.6°C)	80°-90°F (26.6°-32.2°C)	90°-100°F (32.2°-37.7°C)	100°-110°F (37.7°-43.3°C)	>110°F (>43.3°C)
> 90	13 Hours	8 Hours	6 Hours	5 Hours	4 Hours	3 Hours	3 Hours	3 Hours
70-90	15 Hours	13 Hours	10 Hours	7 Hours	5 Hours	3 Hours	3 Hours	3 Hours
50-70	26 Hours	17 Hours	13 Hours	8 Hours	5 Hours	4 Hours	4 Hours	3 Hours
30-50	36 Hours	30 Hours	19 Hours	13 Hours	8 Hours	6 Hours	5 Hours	5 Hours
10-30	48 Hours	40 Hours	25 Hours	23 Hours	20 Hours	17 Hours	15 Hours	9 Hours

Below 40°F (4.4°C) use BETASEAL Express or BETASEAL 0<sup>ne</sup>



## U-428 Plus and U-838 Primerless to Auto Glass

Safe drive-away times  
FMVSS 212 with passenger side air bag

Relative Humidity (%)	Temperature					
	40°-50°F (4.4°-10°C)	50°-60°F (10°-15.5°C)	60°-70°F (15.5°-21.1°C)	70°-80°F (21.1°-26.6°C)	80°-90°F (26.6°-32.2°C)	>90°F (>32.2°C)
> 70	16 Hours	14 Hours	10 Hours	6 Hours	6 Hours	4 Hours
50-70	26 Hours	18 Hours	15 Hours	8 Hours	7 Hours	5 Hours
30-50	38 Hours	32 Hours	20 Hours	15 Hours	10 Hours	8 Hours
10-30	50 Hours	42 Hours	27 Hours	25 Hours	22 Hours	19 Hours

Below 40°F (4.4°C) use BETASEAL Express or BETASEAL 0<sup>ne</sup>



*We listen. We deliver.*



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