

# 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 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	
Temperature	FMVSS 212 with passenger side air bag
0°F (-17.8°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° to 15.5°C)	60°-70° F (15.5° to 21.1°C)	70°-80° F (21.1° to 26.6°C)	80°-90° F (26.6° to 32.2°C)	90°-100° F (32.2° to 37.7°C)	100°-110° F (37.7° to 43.3°C)	>110° F (43.3°C)	
>90%	7 hours	5 hours	4 hours	3 hours	2 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	2 hours
50-70	8 hours	7 hours	5 hours	4 hours	3 hours	2 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	2 hours
10-30	24 hours	20 hours	12 hours	7 hours	6 hours	5 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

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° to 15.5°C)	60°-70° F (15.5° to 21.1°C)	70°-80° F (21.1° to 26.6°C)	80°-90° F (26.6° to 32.2°C)	90°-100° F (32.2° to 37.7°C)	100°-110° F (37.7° to 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>th</sup>ne

# U-428 and U-428Plus

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° to 15.5°C)	60°-70° F (15.5° to 21.1°C)	70°-80° F (21.1° to 26.6°C)	80°-90° F (26.6° to 32.2°C)	>90° (>32.2°C)
>70%	16 hours	16 hours	12 hours	8 hours	8 hours	6 hours
50-70	26 hours	18 hours	16 hours	8 hours	8 hours	8 hours
30-50	40 hours	34 hours	23 hours	16 hours	16 hours	10 hours
10-30	52 hours	44 hours	29 hours	27 hours	24 hours	20 hours

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

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