



# DIAMONDLOCK™ RFA 300C Polyurethane Adhesive

An easier, more sustainable and  
cost-effective multipurpose flooring adhesive



Bonds commercial and residential flooring which includes:

- Solid hardwood
- Engineered hardwood
- Parquet
- Laminate
- Bamboo
- Cork
- LVT
- Acoustic rubber underlayment

Dow's DIAMONDLOCK™ RFA 300C Polyurethane Adhesive is an award-winning, pourable, one-component, moisture-cured polyurethane adhesive. Residential and commercial installations will be easier and faster.



## DIAMONDLOCK™ RFA 300C Advantages

**Higher coverage:** Up to 30% more surface area coverage than incumbent technology.\*

**Easy to use:** A low-viscosity adhesive solution makes it easy to pour and trowel, while maintaining trowel ridges (see image opposite).

**Sustainable:** Can contribute to LEED credits and has no detectable VOC, low odor, and non-flammable.

**Cost-effective:** Delivers higher floor coverage for cost-effective installation (see Figure 1).

**Fast-curing:** Allows faster return to service, with a five-hour cure time. (see Figure 2).

**Durable:** Elastomeric properties allow the adhesive to naturally move with flooring, protecting it against damage and stress.

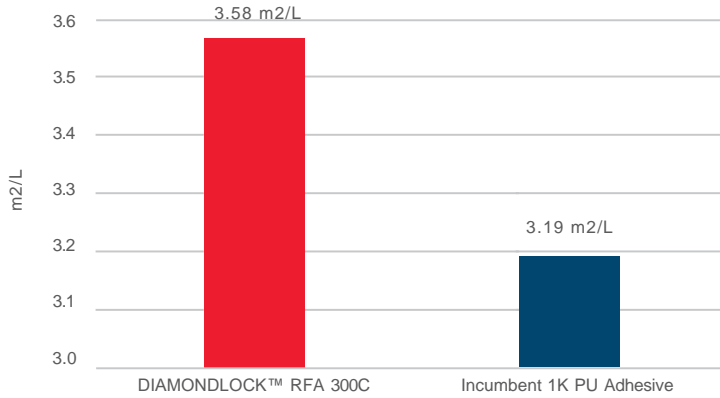
**Convenient:** A one-component polyurethane adhesive – no mixing required.

**Strong:** Delivers excellent adhesion to properly prepared acoustic rubber underlayment systems, plus concrete and wood surfaces.

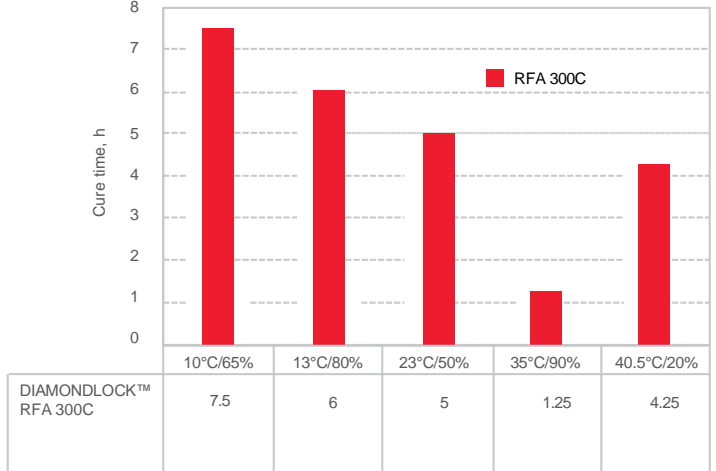
**Low trowel force:** Requires less pressure to make the adhesive flow smoothly.

\*When using recommended 1.6 mm x 1.6 mm x 2.4 mm. U-notch flooring trowel and appropriate surface condition

**Figure 1: Coverage rate**



**Figure 2: Cure time**



DIAMONDLOCK™ RFA 300C cures in five hours, well under the 12-hour cure time customers specify as desirable.

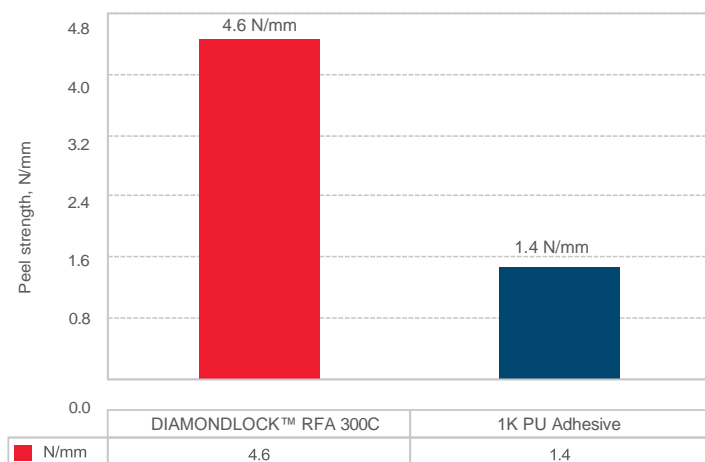
Floors are ready for light traffic after 8-10 hours and regular traffic after 24 hours, delivering an efficient return to service.

### Exceptional mechanical performance

As a single-component adhesive, DIAMONDLOCK™ RFA 300C provides excellent mechanical performance without compromising adhesive strength and elongation.

Physical properties	
Cure system	Moisture
Color	White
Viscosity at 25 °C	100,000 cP
VOC content	Non-detectable
Solvents	0%
Density at 25 °C	1.55 g/ml
Curing time	5 hours – light traffic after 8-10 hours and normal traffic after 24 hours
Sag	Easy to trowel and retains ridges
Service temperature	-40°C to 40°C
Mechanical properties	
Tensile strength	360 psi
Elongation	270%
Peel strength (wood to concrete)	Substrate (wood) failure
Bond strength to concrete	LVT: Substrate (concrete) failure; Wood: Substrate (concrete) failure

**Figure 3: Peel test**

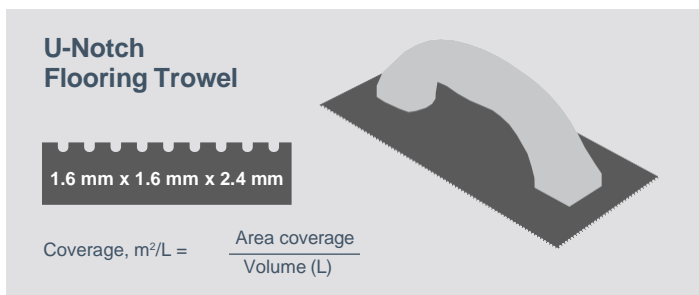


Failure mode was 100% substrate failure

### Cost-effective coverage

The coverage of DIAMONDLOCK™ RFA 300C is up to 30 percent better when compared to the coverage of market competitors.

Cost per square meter is the only way to accurately compare the cost of flooring adhesives. The balance of viscosity and density of DIAMONDLOCK™ RFA 300C provides a more cost-effective adhesive for customers.



## DIAMONDLOCK™ RFA 300C application conditions

<b>Substrate temperature</b>	The temperature of the substrate should be more than 16°C and less than 35°C*.
<b>Air temperature</b>	Room temperature should be between 10°C and 40°C*.
<b>Humidity</b>	Moisture affects cure to a greater degree than temperature. Lower air humidity (<20%) will result in slower curing rate, while higher air humidity (>80%) can result in foaming. DIAMONDLOCK™ RFA 300C is tolerant up to 92% humidity from the substrate.

\* Higher temperature may result in faster curing time, leading to shorter working time

### Storage and shelf life

The shelf life of DIAMONDLOCK™ RFA 300C is twelve months from the date of manufacturing in unopened original packaging. Store at temperatures between 10°C and 32°C.

### A legacy of innovation and sustainability

Dow polyurethane science delivers exceptional solutions for the most demanding applications. With a focus on innovation, we are committed to providing flooring adhesives that are sustainable, cost-effective and make installation easier. With more than 60 years of experience in polyurethane chemistry, Dow adhesives remove installation challenges and improve flooring performance.

### Use with caution

Harmful if swallowed or inhaled. Contains potential sensitizer. May cause allergic reactions to skin and lungs. Irritants to eyes, skin and respiratory tract.

### First aid recommendations

Refer to product label and safety data sheet for all environmental, health and safety information.

### A note about product safety

When considering the use of any Dow products in a particular application, you should review the latest Safety Data Sheets from Dow and ensure that they are intended for safe use. For other products mentioned in the text, you should obtain the current Safety Data Sheet and other available product safety information when reviewing and take necessary steps to ensure safety of use before handling.

No chemical should be used as or in a food, drug, medical device or cosmetic, or in a product or process in which it may contact a food, drug, medical device or cosmetic, until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Dow requests that the customer read, understand and comply with the information contained in this publication and the current Safety Data Sheet(s). The customer should furnish the information in this publication to its employees, contractors and customers, or any other users of the product(s), and request that they do the same.

Note: This guide is designed as a general product overview. Please contact your local Dow representative for up-to-date, detailed technical information including registrations and use limitations and to discuss individual applications or requirements.



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