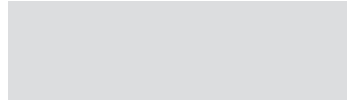




The Chemical Company

PRODUCT DATA



DEGABOND™ 55 Series (1, 2 & 3)

One-component, moisture-curing polyurethane lamination adhesive

Description

DegaBond™ 55 is a one-component, moisture-curing adhesive. Its patented formula provides excellent adhesion to a wide variety of substrates and contains no solvent, so it won't attack foam. DegaBond™ 55 is offered in three different cure speeds (see attached chart).

Packaging

5 gallon (18.9 L) pails
50 gallon (208 L) drums

Color

Amber

Shelf life

3 months in unopened containers when stored at 75° F (24° C) and 50% relative humidity.

Storage

Protect unopened containers from heat and direct sunshine. In cool or cold weather, store containers at room temperature for at least 24 hours before using.

Features

- One component
- Patented formula (patent #5,290,853)
- Chemically crosslinks
- Excellent adhesion to a variety of substrates
- 100% solids
- Meets VOC regulations

Benefits

- No mixing required
- Superior lamination performance
- Outstanding toughness
- Permanent and versatile bonding agent
- Contains no solvents
- Environmentally friendly

Where to Use

- Fully Automated Lamination Process Systems
- Semi-Automated Lamination Process Systems
- Manual Lamination Processes
- SIP (Structural Insulated Panels)

How to Apply

Surface Preparation

1. Surfaces must be structurally sound, dry, clean, free of dirt, moisture, loose particles or other substances that may affect adhesion.

Priming

1. DegaBond™ 55 bonds well to most substrates; however, it is the user's responsibility to check the adhesion of cured DegaBond™ 55 on specific substrates. For further information, call BASF Technical Service.

Application

1. DegaBond™ 55 is a patented adhesive for use in the assembly or laminating or bonding sidewalls, door panels, wood lamination, composites and a wide variety of substrates and materials. DegaBond™ 55 is suitable for making permanent high-strength lamination bonds.

2. Apply by roll coater or bead coater. Can also be applied by trowel manually. Refer to dispensing equipment manufacturer's instructions or call BASF Technical Service.
3. Apply DegaBond™ 55 when temperature is above 40° F (4° C).
4. See table on page 2.

Clean Up

Immediately after use, clean spills, excess DegaBond™ 55 and tools with appropriate solvent. Equipment may be cleaned with dibasic ester or polypropylene carbonate.

Uncured adhesive may be removed by mineral spirits, xylene or MEK. Citric cleaners have also proven effective for urethane adhesive removal. Urethane adhesives should be cleaned from the skin prior to cure. Cured adhesive must be removed mechanically. Contact BASF Technical Service for cleaning recommendations.

Technical Data

Composition

DegaBond™ 55 is a one-component polyurethane-based structural bonding adhesive.

Work Time

5 mL bonding, water misted 2 g/ft²

TEMP	WORK TIME (MIN)		
	DEGABOND 55-1	DEGABOND 55-2	DEGABOND 55-3
60° F (16° C)	66	39	14
65° F (18° C)	61	35	13
70° F (21° C)	56	32	12
75° F (24° C)	51	27	11
80° F (27° C)	46	25	10
85° F (29° C)	41	22	9
90° F (32° C)	35	19	8
95° F (35° C)	30	15	7
100° F (38° C)	25	12	7

Press Time

TEMP	PRESS TIME (MIN)		
	DEGABOND 55-1	DEGABOND 55-2	DEGABOND 55-3
60° F (16° C)	119	78	37
65° F (18° C)	111	72	34
70° F (21° C)	103	66	31
75° F (24° C)	96	60	28
80° F (27° C)	87	54	25
85° F (29° C)	79	48	23
90° F (32° C)	71	43	20
95° F (35° C)	64	37	17
100° F (38° C)	56	31	14

Test Data

PROPERTY	RESULTS	TEST METHODS
Polymer type	Polyurethane	
Appearance	Amber liquid	Visual
Viscosity , (cps), 77° F (25° C)	8,000 ± 2,000	ASTM D 2393
Density , lbs per gallon	8.65 ± 0.15	ASTM D 1475
Flash point , °F (° C)	Greater than 250 (121)	
Shrinkage	None	
Solids , %	100	ASTM D 1259
Lap Shear Strength , psi		ASTM D 1002
Plywood to fiberglass-reinforced plastic	250 ± 25	
Plywood to EPS	40 ± 4 (foam tears)	
OSB to OSB (oriented strandboard)	540 ± 15	
Plywood to Douglas fir	860 ± 35	
Plywood to treated lumber	960 ± 40	

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Coverage

The following is a coverage chart for determining approximate yields for your application.

ADHESIVE FILM THICKNESS	SQUARE FEET PER GALLON (APPROX.)	GALS. REQUIRED PER 1000 SQ. FT. (APPROX.)
5 mils	320	3.1
10 mils	160	6.3
15 mils	120	12.5
20 mils	80	12.5

BASF recommends a 5-8 mil adhesive layer when laminating smooth surfaces. For cut foam or absorbent substrates applications of 8 to 10 mils is recommended. Your actual usage will depend on the specifics of application. Generally, yields of between 250 and 500 square feet are common.

Estimated Working/Press Times

The Work Time and Press Time tables indicates the working/press times for DegaBond 55 polyurethane adhesives. Times are based on a 5 mil bond line, water misted 2 grams/sq. ft. Actual times may differ depending on the amount of adhesive applied, room temperature, humidity, and temperature of the substrates.

Substrate Preparation

To establish the best possible bond, attention must be given to the surface of the substrates being bonded. Most bond failures are the result of factors other than the performance of the adhesives. The most common source of failure is substrate contamination. The surfaces must be clean and free of oil, grease, waxes, water, dirt and other contaminants. For best results both adhesive and substrate should be above 60°F.

For Best Performance

- It is highly recommended that gloves be worn during application. DegaBond™ 55 is difficult to remove from skin and clothing. If adhesive gets on skin, immediately wipe off.
- Before use, keep DegaBond™ 55 tightly sealed and dry to prevent moisture contamination.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

DEGABOND™ 55

Caution

DegaBond™ 55 contains methylene bisphenyl diisocyanate and polymethylene polyphenyl isocyanate.

Risks

May cause skin, eye or respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or if used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations. DO NOT take internally. Empty container may contain hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to the Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product does not knowingly contain substances listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 lbs/gal or 0 g/L, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

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