



Distributor

Allsource Supply Inc.
2752 Vinland Street
Oshkosh, WI 54901
833-663-4255

Hardbond Poly 100 is a unique, high solids polyaspartic with an extremely mild odor for sensitive environments.

Hardbond Poly 100 is commonly used as a topcoat in abusive environments such as garages, warehouses, and production areas. The viscosity of Hardbond Poly 100 is perfect for high-build and vertical applications. However, the viscosity may be adjusted when additional leveling properties are desired.

Hardbond Poly 100 may be used as a clear primer or pigmented with UltraColor E/P Pigment Packs to achieve a solid-colored primer, body-coat, or topcoat. Hardbond Poly 100 has excellent bond strength, UV resistance, chemical resistance, and gloss retention.

UNIQUE ADVANTAGES

- Low VOC (50-state VOC and DOT compliant)
- Very low odor and excellent UV stability
- Good leveling properties at high film builds
- Color with UltraColor E/P Pigment Packs
- DOT non-regulated

PROVEN INDUSTRIES

Commercial: stadiums, restaurants, kitchens, restrooms

Institutional: corridors, loading docks, storage facilities

Government: Armed Forces bases, parking garages

Residential: garages and decorative concrete floors

Industrial: warehouse, production areas, mechanic shops

TDS SHEET / HARDBOND POLY 100

PACKAGING

2 components, 2:1 ratio (2 Parts A : 1 Part B)

15-gallon Kit: 2 x 5-gal. pail Part A + 1 x 5-gal. pail Part B

Optional – UltraColor E/P Pigment Pack(s)

COVERAGE RATES

Average coverage rate: 80-320 SF / gallon (5-20 mils).
Texture, absorption of surface, and application processes will determine final coverage rates. Rough or porous concrete may require additional material.

SHELF LIFE

1 year (unopened and stored at 59-77°F / 15-25°C)

TECHNICAL DATA

Mixing ratio (by volume)	2 Part A to 1 Part B	
Solids (weight) %	99	ASTM D5201
Solids (volume) %	99	ASTM D5201
VOC (grams/liter)	20	ASTM D7768-12
Gloss @ 60° angle	95	ASTM D523
Mixed viscosity (cps)	850	ASTM 2196
Mixed viscosity + 5% solvent	375	ASTM 2196
Mixed viscosity + 10% solvent	175	ASTM 2196
Taber abraser (CS-17, 1000g, 1000 cycles)	36	ASTM D4060
Konig hardness	150	ASTM D4366
Pull-off adhesion	Conc. failure	ASTM D7234
Impact resistance	60%, 140 lb.	ASTM D6905
Tensile strength	3800	ASTM D2370
Elongation	25	ASTM D2371
Mandrel bend (1/8')	Pass	ASTM D522
Dry times Dry times (in hours) for light foot traffic at various temps & RH		
90°F / 80% RH	2	ASTM D5895
75°F / 50% RH	5	ASTM D5895

TDS SHEET / HARDBOND POLY 100

TECHNICAL DATA CONTINUED

50°F / 40% RH	8	ASTM D5895
Data collected at 75°F, 50% RH, 10 mil application		
Pot life / double viscosity (mins)	18	
Working time (mins)	15	ASTM D5895
Dust-free time (hours)	2	ASTM D5895
Water-resistant time (hours)	3	ASTM D5895
Chemical/tire resistant	3 days	
Full cure	7 days	
Recoat window (hours)	24	

CHEMICAL RESISTANCE

Isopropyl 70%	1	50% sodium hydroxide	1
Bleach	2S	Jet fuel (JP-4)	1
30% hydrochloric acid (Muriatic)	1	Methyl Ethyl Ketone	2
37% sulfuric acid (Battery acid)	1S	Brake fluid	1
10% acetic acid	1	Skydrol 500 B	1
1=No Effect, 2=Slight, 3=Moderate, 4=Severe			

ENVIRONMENTAL TESTING

Moisture Content

All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system.

It is the coating applicator's responsibility to conduct calcium chloride testing (ASTM F1869) or plastic

sheet testing (ASTM D4263) and relative humidity probe testing (ASTM F2170) to determine if excessive levels of moisture vapor emissions are present before applying any coatings.

Slabs on grade shall have a moisture vapor emission rate of less than 3 pounds / 1,000 sf / 24 hours when measured by calcium chloride test and less than 75% relative humidity when measured using in situ probes. Test the air temperature, relative humidity, and floor temperature in the area to be finished using a Psychrometer and Infrared Thermometer.

Air Temperature

Hardbond Poly 100 should not be applied when the air temperature is above 90°F or below 50°F.

Relative Humidity (RH)

Hardbond Poly 100 should not be applied when the RH is above 80%.

Floor Temperature and Dew Point

Hardbond Poly 100 must not be applied when the substrate (floor) temperature is less than 5° above the dew point. Monitoring the substrate temperature, indoor temperature, and RH, and utilizing fans and/or dehumidifiers as needed will help correct or prevent existing or possible dew point conditions until the installation is complete. All substrates must be prepared by trained or experienced contractors or maintenance personnel. Allsource Supply Inc. will not be responsible for coating failures due to improper preparation processes, undetected moisture vapor emissions, or other unacceptable environmental conditions.

FLOOR PREPARATION

Direct to Concrete Preparation

Concrete shall be lightly shot-blasted or diamond ground with 30-80 grit metal bond diamonds to achieve a minimum of CSP 2 - CSP 3 concrete surface profile. Concrete must be cured prior to coating (poured and aged at a material temp of at least 75°F for at least 30 days), structurally sound, and free of contaminants including but not limited to waxes, loose paint, dust, dirt, grime, oils, release agents, curing compounds, and any surface laitance (a layer of weak and nondurable material). If prepared concrete is suspected to be contaminated with any of these materials, test for their presence by spraying a thin coat of water onto the concrete. If water beads on the surface, contamination is likely present and the concrete should be scrubbed with a degreaser or mild detergent, rinsed with clean water, and allowed to thoroughly dry prior to coating.

Topcoat Preparation

If applying Hardbond Poly 100 as a topcoat over freshly applied coatings such as Epoxy or Polyurea, apply within the stated recoat window or abrade with 80-150 grit screens prior to application. If applying Hardbond Poly 100 as a second coat over Hardbond Poly 100, recoat within 24 hours or screen / abrade the surface. If Hardbond Poly 100 is being applied over an old or existing resinous flooring, mechanically abrade the surface by grinding with 70-100 grit metal bond diamonds or scrub with 60 grit sand screens.

ULTRACOLOR OPTIONS

Make note of the recoat window when using UltraColor E/P pigment packs with UltraSpartic 100. See UltraColor E/P Pigment TDS for color availability. Not all colors will achieve 100% hide in one coat. White and some other light colors may require multiple coats, thicker film builds, and/or more pigment when mixing. Contact Allsource Supply Inc. for additional information.

MIXING INSTRUCTIONS

(2:1 ratio)

Ensure that parts A and B are at room temperature (59-77°F, 15-25°C) prior to mixing.

- 1) Wear gloves and safety glasses when mixing. Mix quantity that will be used within working time (15 minutes at 75°F).
- 2) Pre-mix part A for 1 minute.
- 3) By volume, pour out two (2) parts A into a separate mixing container.
 - a. **Optional** – Add UltraColor E/P and mix for 1 minute or until uniform in color. (see UltraColor E/P TDS for quantity)
 - b. **Optional** – Add up to 10% solvent (Xylene, Acetone or Oxsol100/ PCBTF) and mix for 1 minute.
- 4) By volume add one (1) part B to the mixing container and drill-mix at low speed for 3 minutes.
- 5) Complete spreading and rolling within 15 minutes. Contact Allsource Supply Inc. for additional mixing or solvent reduction information.

APPLICATION INSTRUCTIONS

Apply Hardbond Poly 100 using a flat or notched squeegee and back-roll the spread material immediately with a 3/8" nap or shorter roller. The "pour and roll" method may also be used. To avoid roller lines or tracking, roll quickly from end to end. Do not exceed 15 minutes of working time or 20 minutes of pot life. Use joints or saw cuts as natural breaks to divide sections of the floor. Hardbond Poly 100 will set-up, dry and cure faster in high-humidity environments. Never apply to a wet or damp substrate. Film thicknesses greater than 20 mils may entrap solvent resulting in entrapped air / CO2 bubbles. If allowed to puddle, CO2 bubbles will appear as white or frosted areas. Contact Allsource Supply Inc. if a film-build higher than 20 mils is desired.

SLIP RESISTANCE

Allsource Supply Inc. recommends the use of traction additives in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor's and end users' responsibility to select and provide a flooring system that meets current safety standards. Allsource Supply Inc. makes no claims of longevity of SCOF or DCOF results.

Allsource Supply Inc. will not be responsible for injury incurred in a slip and fall accident.

MAINTENANCE INSTRUCTIONS

After completing the application of Hardbond Poly 100, routine sweeping, mopping, washing and mechanical scrubbing is recommended. Cleaning with plain water is suitable in most environments. Use pH neutral cleaners if necessary. The installer should provide the owner with maintenance instructions. Clean and rinse thoroughly if floors become slippery due to animal fats, oil, grease, or soap film.

WARRANTY

Allsource Supply Inc. products are warrantied to be of uniform quality within manufacturing tolerances. Since no control is exercised over product use, no warranty, expressed or implied, is made to the effects of such use. The seller and manufacturer's obligations under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. Contact your representative for more information.