



## Product Information

### BDC 9790 Polyurea

### 78% Solids Polyaspartic Polyurea Topcoat

#### Description

B.D. Classic 9790 Polyurea is a 12 Hour Dry, two-component, high-solids, Polyaspartic Polyurea. The 9790's extra working time, coupled with its UV resistance, mar resistance, and chemical resistance will outperform most other types of sealers or topcoats.

#### Uses

BDC 9790 is designed for professional use only and is specified as the finish coat for use in moderate chemical environments or in medium-heavy traffic areas. Apply BDC 9790 as a coating over B.D. Classic water base and 100% solids epoxies. BDC 9790 can also be applied over decorative paint chips and can be used as a sealer on a variety of other substrates such as plain concrete, acrylic cements and Acid Stained Concrete Flooring. Use BDC 9790 on Industrial Floors, residential Garage Floors, Decorative Floors, Restaurant Floors, Food Processing Facilities, Automotive Service Areas, and other moderate-high traffic areas.

#### Advantages

- SCAQMD VOC Compliant (VOC < 5 g/l)
- Non-Flammable Formula
- Chemical Resistant
- Color and Gloss Retention
- Impact & Abrasion Resistant
- Extended Working Time and Dry Time
- Walk on 24 Hours, Drive on 96 Hours

#### Coverage

225-300 sf per gal over smooth surfaces  
175-250 sf per gal over rough surfaces

#### Packaging

1 gallon kits premeasured with ½ gallon of Isocyanate A and ½ gallon of Resin B in 1/2 gallon bottles  
2 gallon kits premeasured in two 1 gallon bottles  
10 gallon kits premeasured in two 5 gallon pails

#### Colors

Clear

#### Inspection

Concrete must be clean, dry, and free of grease, paint, oil, dust, curing agents, or any foreign material that will prevent proper adhesion. The concrete should be at least 2500 psi and feel like 30-grit sandpaper. The concrete should be porous and be able to absorb water. A minimum of 28 days cured is required on all concrete. Relative humidity in the concrete floor slab should be below 80% (per ASTM F-2170). All moisture should be kept away a min. of 72hrs before application and a min. of 72 hours after installation. This includes sprinklers, rain, fog, dew, etc.

Before starting flooring work, test existing concrete slab to make sure there is no efflorescence or high levels of alkalinity. Alkalinity refers to a high pH reading which means the floor is not neutral. A high alkaline environment can cause salts to creep up through the cement called efflorescence. These salts have a tendency to prevent or destroy the bonding of coatings to the concrete. The most common form of testing is the use of a wide-

range pH paper or tape. Make sure the floors pH reading ranges between 5-9 to ensure adhesion. The testing of concrete for alkalinity can show the amount of alkalinity only at the time the test is ran, and cannot be used to predict long-term conditions.

Calcium chloride tests should be conducted to determine if the concrete is sufficiently dry for a floor coating's installation. The calcium chloride tests should be conducted in accordance with the latest edition of ASTM F 1869, Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. When running a calcium chloride test, it is important to remove any grease, oil, curing agents, etc. so accurate readings can be obtained. A rate of 3 lbs/1000 ft<sup>2</sup>/24hr period or less is an acceptable amount of vapor pressure the BDC 9790. If the reading is any higher, please consult your B.D. Classic Salesman for further instructions.

Failing to adhere to these strict guidelines can result in product delamination, discoloration, blistering, or all together failure of the coating system. Testing is the responsibility of the applicator. B.D. Classic bears no responsibility for failures due to any of the above conditions.

#### Surface Preparation

Over Concrete: Concrete should be mechanically profiled by shotblasting or diamond grinding. When using other methods or scarification, make sure it is roughed to feel like 30 grit sandpaper and so that it is porous and contaminant free so the product can soak in and properly bond.

Over Epoxy or CRU: Apply directly over new epoxy or Urethane within 24 hours of initial application. When applying over existing epoxy or CRU that has been cured for longer than 24 hours, sand the surface with 100 grit sand paper, remove debris and wipe with acetone just before new application.

#### Mixing

As Coating over Concrete, Epoxy, or CRU: Before application, BDC 9790 A-Side and B-Side should be pre-mixed in their individual containers. Add 1 part of the A-Side to 1 part of the B-Side while mixing, using a mechanical mixer (Jiffy Mixer) at low to medium speeds. No thinning is necessary. Mix until a homogeneous mixture and streak-free appearance is attained (approximately 3 minutes). Use care to scrape the sides of the container to ensure that no unmixed material remains.

#### Application

For best results, the material should be spread by squeegee or magic trowel and finished with a mohair roller cover. Neatly cut-in all edges with a brush and spread thin and evenly throughout surface to be coated. After spreading evenly, lightly backroll using a 1/4" solvent proof, non-shedding nap roller for smooth surfaces and a 3/8" nap for rough surfaces. Be sure to roll gently and evenly in a "V" pattern, rolling in both directions. Avoid overrolling as this may cause unwanted bubbles or roller marks. Avoid puddling, as material will turn white and bubble. Brush all puddles and expansion joints to avoid this problem. You have approximately 25 minutes to work with, as product will begin to "tack-up" as it begins to cure.

Re-coat if needed *within* 24 hours of application to insure adhesion. If a delay occurs, it is recommended that the surface



be sanded and wiped clean with acetone before reapplication.

**Maintenance:**

Cleaning the Polyurea is best done by mopping surface with mild soap and water or a mild detergent. For best appearance, B.D. Classic recommends resealing the surface every 3-4 years. Reseal by lightly sanding existing coating, cleaning surface, and applying 9790 over dry surface using above application specifications

**Limitations**

- Do not apply in temperatures below 50°F or above 90°F.
- Do not apply unless temperature is 5° above the dew point or if rain is expected within 24 hours.
- Do not apply on damp or moist surface as it will whiten and may cause delamination.
- Do not allow any BD Classic products to freeze.
- Always apply on a test area before starting actual job.
- Prior to coating previously sealed surfaces, do a small area to test for adhesion.
- Shelf Life of this material is 12 months from the date of manufacture. (See batch number for manufactured date)
- B.D. Classic recommends the use of angular slip resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system

that meets current safety standards.

- OK for use in residential garages in all districts of the United States.
- Please become familiar with local Air Quality laws and regulations prior to applying this coating. B.D. Classic bears no responsibility for improper usage.

**Clean Up**

Uncured material can be removed with a solvent. Cured material can only be removed mechanically. All empty containers must be disposed of according to local, state, and federal regulations.

**Warranty**

B.D. Classic Enterprises guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. B.D. Classic makes no other warranty, expressed or implied, and all warranties of merchantability and fitness for a particular purpose are hereby disclaimed. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product. Manufacturer shall not be liable for material used outside of its shelf life. For product dating, please refer to the batch number on the product or contact B.D. Classic.

**Technical Data**

	Test Method	Results
Shelf Life		12 months
Mixing Ratio by Volume A:B		1:1
Dry Film Thickness per Coat:	ASTM D-3363	4-7 mils
Tear Resistance DieC	ASTM D-1004-66	270 pli
Tensile Strength	ASTM D-412	3980 psi
Ultimate Elongation	ASTM D-412	8-10%
Gloss (60 deg)	ASTM D-823	90
Volume Solids	ASTM D-2697	78% by volume
VOC	ASTM D 2369-81	< 5 g/l
Pot Life (75±30F)		40 minutes
Recoat Time		12 hrs (min) -24 hrs (max)
Taber Abrasion	ASTM D-4060-84	33.9 mg Loss, C17 Wheel, 1000g Load, 1000 Cycles
Impact Resistance	ASTM D-2794-84	Inch-pounds Direct 120 Reverse 90
Pencil Hardness	ASTM D-3363-84	2-H
Pendulum Hardness	After 1 Day	43 Seconds
	After 7 Days	168 Seconds
Viscosity at 75 F(24 C) 50% RH		A-SIDE 350-400 cps B-SIDE 200-300 cps
Weight		A-SIDE 9.9 lbs/gal B-SIDE 9.2lb
14 Days Cured	4 hrs	24hrs
50% Sulfuric Acid	Slight Soften	Blister
10% Sulfuric Acid	No Effect	No Effect
10% Hydrochloric Acid	No Effect	No Effect
50% Ammonium Hydroxide	No Effect	No Effect
50% Sodium Hydroxide	No Effect	No Effect
IPA - Iso-Propyl Alcohol	No Effect	No Effect
MEK - Methyl Ethyl Ketone	No Effect	No Effect
Deionized (Water)	No Effect	No Effect
10% Betadine	No Effect	No Effect
Break Fluid	No Effect	No Effect
Gasoline	No Effect	No Effect

