

# DIAMONDSTONE®

## DIAMONDCRETE

Urethane cement, broadcast quartz, and urethane cement topcoat



TECHNIQUEx®

DIAMONDSTONE®

# DIAMONDCRETE

DiamondCrete is a four-component, 0% VOC urethane cement system. This system has unlimited moisture control, excellent chemical resistance, and outstanding impact resistance. DiamondCrete has a thermal coefficient of expansion that is almost identical to concrete so it moves with the concrete during extreme temperature changes. It is available with a choice of 4 different aggregates:

- Self-Leveling DiamondCrete BG
- Rake & Trowel DiamondCrete RT
- Trowel Grade DiamondCrete TG
- Cove Mortar DiamondCrete CM



DiamondCrete is available neat or broadcast with quartz aggregate and grouted with either Polyaspartic Urethane 100, Diamond-Novolac or DiamondCrete Seal.

Like all urethane cements, it is necessary to honor the joints. Diamond-FJF urethane joint filler is recommended.

## DIAMONDCRETE FEATURES

- Moisture Tolerant
- Thermal-Shock Resistant
- UV Resistant
- Chemical Resistant
- Impact Resistant
- Qualified LEED® Product

### DIAMONDCRETE BG TYPICAL PROPERTIES

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness (Shore D) (ASTM D-2240)	85-90
Bond Strength (ASTM D-7234)	Concrete Failure
Impact Resistance (ASTM D-2794)	160
Abrasion Resistance (ASTM D-4060)	.023 gm/Loss
Coefficient of Expansion (ASTM C-531)	$1.1 \times 10^{-5}$
Water Absorption (ASTM C-413)	<.10
Service Temperature	-40 °F min; 250 °F max
VOC's	0 g/L

### DIAMONDCRETE RT TYPICAL PROPERTIES

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness (Shore D) (ASTM D-2240)	85-90
Bond Strength (ASTM D-7234)	Concrete Failure
Impact Resistance (ASTM D-2794)	160
Abrasion Resistance (ASTM D-4060)	.023 gm/Loss
Flammability (ASTM D-635)	Self-Extinguishing
Water Absorption (ASTM C-413)	<.10
Service Temperature	-40 °F min; 250 °F max
VOC's	0g/L

The data shown in this document reflect typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

# DIAMONDCRETE

## DIAMONDCRETE TG TYPICAL PROPERTIES

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness (Shore D) (ASTM D-2240)	85-90
Bond Strength (ASTM D-7234)	Concrete Failure
Impact Resistance (ASTM D-2794)	160
Abrasion Resistance (ASTM D-4060)	.023 gm/Loss
Coefficient of Friction Wet (ANSI/NFSI B101.1 Static & B101.3 Dynamic)	Incline >0.45 Decline >0.42
Flammability (ASTM D-635)	Self-Extinguishing
Coefficient of Expansion (ASTM C-531)	$1.1 \times 10^{-5}$
Water Absorption (ASTM C-413)	<.10
Service Temperature	-40 °F min; 250 °F max
VOC's	0 g/L

## POLYASPARTIC 100 TYPICAL PROPERTIES

Hardness (Shore D) (ASTM D-2240)	76
Bond Strength (ASTM D-4541)	Concrete Failure
Abrasion Resistance (ASTM D-4060)	23 mg/Loss
Volume Solids	100%
VOCs	50 gm/ltr

## DIAMOND-FJF JOINT FILLER TYPICAL PROPERTIES

Tensile Strength (ASTM D-412)	425 psi
Elongation (ASTM D-412)	550%
Hardness (Shore A) (ASTM D-2240)	50

## DIAMONDCRETE CM TYPICAL PROPERTIES

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness (Shore D) (ASTM D-2240)	75-80
Bond Strength (ASTM D-7234)	Concrete Failure
Abrasion Resistance (ASTM D-4060)	.023 gm/Loss
Slip Coefficient of Friction (ANSI/NFS B101.1)	Meets ADA Flat and Ramp
Coefficient of Expansion (ASTM C-531)	$1.1 \times 10^{-5}$
Service Temperature	-40 °F min; 250 °F max

## DIAMONDCRETE SEAL TYPICAL PROPERTIES

Compressive Strength (ASTM C-579)	8,500 psi
Tensile Strength (ASTM C-307)	1,400 psi
Flexural Strength (ASTM C-580)	2,700 psi
Hardness (Shore D) (ASTM D-2240)	75-80
Bond Strength (ASTM D-7234)	Concrete Failure
Abrasion Resistance (ASTM D-4060)	.023 gm/Loss
Coefficient of Expansion (ASTM C-531)	$1.1 \times 10^{-5}$
Water Absorption (ASTM C-413)	<0.10
VOC's	0g/L

## DIAMOND-NOVOLAC TYPICAL PROPERTIES

Compressive Strength (ASTM D-695)	13,500 psi
Tensile Strength (ASTM D-638)	7,100 psi
Flexural Strength (ASTM D-790)	11,100 psi
Bond Strength (ASTM D-4541)	Concrete Failure
Abrasion Resistance (ASTM D-4060)	80-85 mg/Loss



# DIAMOND CRETE

## CHEMICAL RESISTANCE

See DiamondStone Chemical Resistance Guide.

## CLEANING & MAINTENANCE

See DiamondStone Cleaning Instructions.

## SURFACE PREPARATION

Apply only to clean and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants. New concrete should be cured a minimum of 28 days. Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed. Remove any laitance or weak surface layers. Prepare surface by mechanical means to achieve a profile equal to industry standards. All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.

## PRECAUTIONS & LIMITATIONS

DiamondStone, LLC recommends the use of slip-resistant with this product. As with any surface, all spills should be removed as soon as possible to prevent a slipping hazard. Refer to Material Safety Data Sheet for detailed safety precautions. Do not apply when concrete temperature is less than 50° F or greater than 100° F. (Material cures slower at cooler temperatures, and working time will be substantially reduced at higher temperatures.) All components should be stored in a dry place at temperatures between 65° F and 85° F. Confirm product performance in specific chemical environment prior to use. Substrate temperature must be at least 5° F above the dew point.

## EXCEPTIONS

If DiamondStone resinous systems is specified, the system incorporates unlimited moisture control. If DiamondStone is not specified, the system will meet the basis of design on moisture limitations.

## NO-NONSENSE WARRANTY

TECHNIQUEx warrants materials & labor to be free from defects for a period of 5 years from the date of substantial completion of the work, unless otherwise stated in the construction documents.

In the event a defect caused by materials or workmanship appears within the warranty period, Techniquex's liability shall be limited to repair or replacement of the work in the defective area only, or at Techniquex's sole election, refund of a pro-rata portion of the contract price for the defective areas. This is the exclusive remedy against Techniquex for the work performed. Notification of a defect must be given to Techniquex in writing during the warranty period.

This limited warranty is exclusive and in lieu of all other warranties of any kind of nature whatsoever, including but not limited to implied warranties of merchantability and fitness for particular purpose, which are specifically excluded and disclaimed. Any and all remedies against Techniquex for defects are limited by this warranty, and in no event shall Techniquex be liable to owner or others for incidental or consequential damages.

## TECHNIQUEx®

Techniquex sets the standard for resinous flooring for all industries that demand a world-class image & unsurpassed performance with floors that last. Techniquex developed the DiamondStone product line to establish the benchmark for quality, finish, and installation excellence.

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