

PRODUCT DATA SHEET

1. PRODUCT DESCRIPTION

Vulcan 42™ is a fast setting, rapid curing, 100% solids, flexible, aliphatic, two component spray polyurea with excellent color retention, that can be applied to suitably prepared interior concrete and metal surfaces. Its extremely fast gel time makes it suitable for application down to -20° F. It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures. It has a tack free time of less than two minutes and 220% elongation upon curing with 50 Shore D hardness.

2. USES

Vulcan 42™ is designed for commercial and industrial projects involving concrete or metal substrates where color variation and/or retention is desired. Refineries, Warehouse floors, Mining Operations, Plants, Cold Storage, Food Processing, Parking Decks, Structural Steel, Walkways & Balconies, among many others.

3. PHYSICAL PROPERTIES

Durometer Hardness (Shore D), <i>ASTM D-2240</i>	45 - 55
Tensile Strength (psi), <i>ASTM D-412</i>	3000 - 3600
Elongation, <i>ASTM D-412</i>	200 - 240%
Taber Abrasion, mg. wt. loss, <i>ASTM D4060</i>	33 (C-17)
Tear Strength (pli), <i>ASTM D-412</i>	380 - 420

4. PRODUCT APPLICATION PARAMETERS

PROPERTY	TEST METHOD	
Mixing Ratio	By Volume	1:1
Viscosity	Brookfield	"A" = 120±20 cps "B" = 40±20 cps
Flash Point	Pensky Martins	>200° F (93.3)
VOC	ASTM 3960	0
Service Temp		-40° - 300°F (Dry) 40° - 200°F (Wet)
Gel Time	Touch	6 - 11 seconds
Tack Free	Touch	40 - 70 seconds
Recoat Time		0 - 6 hours
Return to Service		2 - 4 hours (Foot Traffic) 12 - 24 hours (Full Service)
Resistance to Weathering	ASTM G-23	QUV: 2000 hrs. exp. No cracking or blistering. Gloss reduction noticed & minor chalking are noted.
Crack Bridging	ASTM C-836	PASS (-25°C, 1.6mm crack, 25 cycles)
Steel Adhesion, 90 µm profile		> 900 psi
Pull test "concrete"		> 500 psi (concrete failure)
Water absorption	ASTM D-471	< 1.0

The value ranges stated in this Technical Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.

5. APPLICATION REQUIREMENTS

Application: Both Part-A and Part-B material should be pre-conditioned at 75-80°F before application.

Recommended surface temperature must be at least 5°F above the dew point. Vulcan 42 should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor. Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times. Vulcan 42 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

Mixing: Thoroughly mix Part "B" prior to use. Any colorant used **must** be added to the "B" side (resin). n.b.: Extreme care should be exercised to prevent cross contamination of the A&B components.

Coverage & Surface Preparation: 80 Sq. Ft. per gal @ 20 mils. Substrate must be sound, clean and free of dirt, debris and other contaminants. For best results on most substrates, the use of a primer is recommended. Contact Phoenix for further information prior to installation. No primer is needed for newly applied or cleaned foam.

Limitation: Do not open until ready to use. Both Part A and Part B containers must be fitted with a desiccant device during use.

6. STORAGE & SHELF LIFE

12 months in unopened containers when stored in a dry location at 60-95° F (15-35°C). Part A and Part B drums are recommended to be stored above 60°. Avoid freezing temperatures. Store drums on wooden pallets to avoid direct contact with the ground. If stored for a long period of time, rotate Part-A and Part-B drums regularly.

WARNING: This product contains Isocyanates and Curative Material. This product is considered Dangerous Goods.

DOT regulations classify it as:

PART-A: TOXIC LIQUID, ORGANIC, N.O.S. (Isophorone Diisocyanate), Class 6.1, UN 2810, PG III, TOXIC

Part-B: AMINES, liquid, corrosive, N.O.S. (polyoxpro phylenediamine) Class 8, UN 2735, PGIII, CORROSIVE.

7. DISCLAIMER

The data presented herein is not intended for use by nonprofessional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent test in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

8. SAFETY

Review SDS at www.PhoenixLiners.com. Basic safety for personal protection is:

- Long sleeve overalls or disposable Tyvek overalls
- Splash shield or safety glasses with splash guards
- Rubber gloves
- Respirator / Supplied Air System / Headsock
- Do not take internally; wear rubber or leather boots
- Do not use near high heat or open flame
- Keep out of reach of children

9. TECHNICAL SUPPORT SERVICES

Technical Services, Sales, and Customer Support: (713) 854-4858

10. WARRANTY

Phoenix MCBS, LLC will repair or replace product it finds to be defective provided the product has been used properly. Except as expressly stated above, the Company makes no warranty of merchantability and no warranty of fitness for any particular purpose, nor does it make any warranty, expressed or implied, of any nature whatsoever with respect to the product or its use. In no event shall the company be liable for delay caused by defects, for loss of use, for indirect, special or consequential damages, or for any charges or expenses of any nature incurred without its written consent.