



## REMR MATERIAL DATA SHEET CM-SE-1.36 CONCRETE SEALER: POLY-MER DP4994

## 1. NAME

Poly-Mer DP4994

Physical properties (Cont):

## 2. MANUFACTURER

General Polymer Corp.  
9461 Le Saint Drive  
Fairfield, Ohio 45014  
Telephone: 513-761-0011

| <u>Requirements</u> | <u>Test Methods</u> | <u>Typical Values</u> |
|---------------------|---------------------|-----------------------|
| Elongation, %       | ASTM D 412-68       | 400 - 500             |
| Tear strength, psi  | ASTM D 624-54       | 85                    |
| Hardness            | Shore A             | 85                    |
| Service temperature |                     | -50 °F -<br>250 °F    |

## 3. DESCRIPTION

Poly-Mer DP4994 is a two-component urethane elastomer specifically designed as a highly wear-resistant and waterproof coating. Poly-Mer DP4994 cures to a tough elastic rubber to provide a wearing surface for pedestrian or vehicular surfaces.

|                           |   |               |
|---------------------------|---|---------------|
| Taber abrasion resistance | CS17 Wheels with 1,000 gram load on each arm, 1,000 cycles. | 5 milli-grams |
| Weight loss, % by weight  | 14 days at 250 °F   | 1%            |

## 4. USES

DP4994 is ideal for mechanical equipment rooms, pool decks, parking decks, balconies and concrete floor areas that must maintain absolute integrity against water infiltration to areas below.

|                     |        |   |
|---------------------|--------|---|
| Shrinkage           |        | nil   |
| Chemical resistance | spills | Excellent to common solvents, grease, oils, salts, animal refuse. |

## 5. MANUFACTURER'S TECHNICAL DATA

Physical properties:

| <u>Requirements</u>   | <u>Test Methods</u> | <u>Typical Values</u> |
|-----------------------|---------------------|-----------------------|
| Tensile strength, psi | ASTM D 412-68       | 1,200                 |

|                 |        |  |
|-----------------|--------|--|
| Acid resistance | spills | Excellent (except to nitric and acetic acids). |
|-----------------|--------|--|

(Continued)

Physical properties (Cont):

| <u>Performance Properties</u>       | <u>Test Methods</u> | <u>Typical Values</u> |
|-------------------------------------|---------------------|-----------------------|
| Pot life @<br>75 °F, 50%<br>rh      |                     | 40-45 min             |
| Tack free<br>time                   |                     | 4-6 hr                |
| Cure time                           |                     | 24 hr min             |
| Viscosity,<br>mixed                 | Brookfield          | 1,500 -<br>2,000 cps  |
| Coverage                            | mil ft/gal          | 1,400                 |
| Percent<br>solids, by<br>vol        |                     | 90                    |
| Wt/Gal mixed                        |                     | 9.85                  |
| Colors: gray,<br>tan, red,<br>black |                     |                       |

6. MANUFACTURER'S GUIDANCE FOR APPLICATION

Surface preparation: Concrete must be sound and free of any oil, grease, or contamination. Sand blasting, acid etching, and alkaline cleaners can be used. Prior to application of primers, surfaces must be dry. Steel surfaces should be free of rust and primed before oxidation begins again. New concrete should be acid etched and flushed thoroughly with water to remove all latency and traces of acid residue. Hairline cracks need no special attention; however, those larger than 1/16 in. should be routed out and filled with the proper joint material and coated with 20 mils of elastomer.

Application: Poly-Mer DP4994 may be applied by V-notched squeegee, V-notched trowel and roll, or spray.

Priming: All surfaces are primed with DEP3501 Damp Primer or Epoxy-Polyamide Primer. Poly-Mer DP4994 Deck Coating can be applied as soon as the primer is dry or slightly tacky.

Poly-Mer DP4994 is a two-component, equal part system. Combine Part "A" in equal volumes with Part "B" and mix thoroughly with a heavy duty, low rpm drill with suitable mixing blade or similar device. Be sure sides of the container are scraped well to ensure thorough blending with all the material. Material can then be poured on the surface and spread with a squeegee or trowel and roller. Material can also be sprayed.

The thickness or spread rate of Poly-Mer DP4994 is very important for proper cure and waterproof effectiveness.

1. The base coat is applied at 20 mils dry (72 sq ft/gal). Base coat for vehicular decks is applied 30 mils dry (48 sq ft/gal).

Allow the first coat to cure at least 6 hr or until sufficiently tack free to permit careful walking on it without damaging the surface.

2. Using the same spreading techniques, apply a second coat of Poly-Mer DP4994 to the required mil thickness -

Coverage:

|                  |                |                 |
|------------------|----------------|-----------------|
| Pedestrian decks | 15 mils<br>dry | 99 sq<br>ft/gal |
|------------------|----------------|-----------------|

|                  |                |                 |
|------------------|----------------|-----------------|
| Vehicular decks  | 20 mils<br>dry | 72 sq<br>ft/gal |
| Mechanical decks | 20 mils<br>dry | 72 sq<br>ft/gal |

data sheets must be obtained from the manufacturers of such materials. In cases where the effects of a chemical substance on occupational health or environmental quality are unknown, chemical substances should be treated as potentially hazardous toxic materials.

#### 7. CORPS OF ENGINEERS' EVALUATION (tested as concrete sealers only)

##### Physical and mechanical properties:

Percent solid  
(ASTM D 1644, Method A): 90.0%

Percent moisture absorption  
(ambient temp) (ASTM C 642-82):

|        |       |
|--------|-------|
| 1 day  | 0.07% |
| 2 days | 0.10% |
| 4 days | 0.15% |
| 7 days | 0.26% |

Ratio of percent moisture absorption  
for treated to nontreated specimen  
(2-day submersion): 2.13%

Percent vapor transmittance (see Tech-  
nical Note CS-ES-1.8):

|        |       |
|--------|-------|
| 2 days | 0.21% |
| 4 days | 0.39% |
| 7 days | 0.65% |

Ratio of percent vapor transmittance  
for treated to nontreated specimen  
(2-day diffusion): 12.2%

#### 8. ENVIRONMENTAL CONSIDERATIONS

Reasonable caution should guide the preparation, repair, and cleanup phases of activities involving potentially hazardous and toxic chemical substances. Manufacturer's recommendations to protect occupational health and environmental quality should be carefully followed. Material safety