COTE-L Industries, Inc.

DURABAK-M26, High Durability Deck Coating

PRODUCT DESIGNATION
Durabak-M26

MIL-PRF-32171

If this product is to be applied as part of a coating system, all components of the system must be as listed on the QPL.

This NAVSEA-REVIEWED ASTM F-718 data sheet is the only data sheet approved for use when utilizing this coating for U.S. Navy preservation projects. NAVSEA's review covers only the application process for the material. The review does not denote the material as a qualified product, nor does it constitute an approval for purchase/procurement of the material. For products on the Qualified Products List (QPL) for this MILSPEC, please refer to https://qpldocs.dla.mil/search/default.aspx.

Questions regarding modifications or updates of this ASTM F-718 shall be directed toward:

NSWCPD

NSWCPD_ASTM_F718.fct@navy.mil

NAVSEA Reviewed: 16 July 2019
I. GENERIC TYPE AND DESCRIPTION: Deck Coatings, High Durability
   Specification Number: MIL-PRF-32171
   NOTE: For Type/Grade/Class/Application information see QPL-32171

II. MANUFACTURERS DATA:
   (a) MANUFACTURER: COTE-L Industries
   (b) PRODUCT DESIGNATION: DURABAK-M26
   (c) COLOR(S): Black, Grey, Dark Blue, Yellow, Safety Red, Safety Orange, Forest Green, Brown, Light Grey, Medium Blue, Brick Red, Light Tan, Avocado Green, Cream, White, Beige, Clear
   (d) USES: AFFF Stations, Indoor Wetted Areas, Passageways, Ramps, Gangways, Piping, Bilge, and Outdoor Weather Decks
   (e) TECHNICAL SERVICE REPRESENTATIVE: Dr. Cy Fine, President, COTE-L Industries, Inc.
      PHONE: (201) 836-0733 FAX: (201) 836-5220; EMAIL: cfine@cotelind.com
   (f) NOT INTENDED FOR USE ON: Inside Lining of Potable Water Tanks, Exterior applications beneath the waterline.

III. PROPERTIES:
   (a) PERCENT VOLUME SOLIDS (ASTM D 2697): 71.78 %
   (b) PERCENT WEIGHT SOLIDS (ASTM D 2369): 75.72 %
   (c) FLASH POINT (ASTM D 3278): 122 °F
   (d) WEIGHT PER VOLUME (ASTM D 1475): 8.6 lbs/gal
   (e) PERCENT EDGE RETENTION (IF REQUIRED BY APPLICABLE SPECIFICATION – LIST TEST METHOD USED): Not Required
   (f) SHELF LIFE: 12 months
   (g) VISCOSITY (ASTM D 562-01)
      COMPONENT A: 72-115 Krebb Units (73.4 °F)
      COMPONENT B: N/A
      MIXED: N/A
   (h) PACKAGING: Single Quarts or Gallons
   (i) NUMBER OF COMPONENTS: Single (1)
   (j) GLOSS (ASTM D 523): 84.7 %
   (k) STORAGE REQUIREMENTS: TEMPERATURE: MIN. 32 °F MAX. 104 °F
      ADDITIONAL PAINT STORAGE REQUIREMENTS: Store in a Dry Area
   (l) VOLATILE ORGANIC COMPOUNDS (VOCs- EPA TEST METHOD 24): 2.6 lbs/gal
   (m) WEIGHT PER AREA OF DRY FILM AT 1 MIL THICKNESS: 0.0026 lbs/sq ft @ 1 mil
(n) SPECIAL PROPERTIES: Needs Clean Dry Substrate; Needs Relative Humidity/Moisture to Dry and Cure; One-Part, Totally Flexible, Slip Resistant, Repairable, Corrosion and Abrasion resistant, self-leveling, low VOC, UV and acid and chemical resistant.

IV. SURFACE PREPARATION MINIMUM REQUIREMENTS:

(a) INITIAL: SSPC-SP 11

(b) TOUCH-UP: SSPC-SP 3

(c) PROFILE (ASTM D 4417, Method C): MIN. 2 mil MAX. 6 mil (Profilometer Gauge)

(d) SPECIAL INSTRUCTIONS: RELATIVE HUMIDITY MIN: 40 %. SEE SURFACE PREPARATION INSTRUCTION.

(e) PRIMER REQUIREMENTS: 2-part epoxy primer on all metal surfaces.

(f) MAXIMUM ALLOWABLE CONDUCTIVITY: For immersed applications, the maximum conductivity is 30 micro-Siemens/cm; and for non-immersed applications the maximum conductivity is 70 micro-Siemens/cm.

(g) MAXIMUM DEGREE OF FLASH RUSTING ALLOWED: N/A. Primer is required.

SPECIAL SAFETY PRECAUTIONS:

See SDS (also on DurabakM26.com website). Generates CO2 gas from reaction with water. If contaminated with water, do not reseal lid, to prevent bursting.

V. MIXING PROCEDURES:

(a) MIXING RATIOS BY WEIGHT: N/A (This is a single component product)

   BY VOLUME: N/A (This is a single component product)

(b) INDUCTION TIME: N/A

(c) RECOMMENDED CLEANING SOLVENT (NO THINNING ALLOWED): AROMATIC 100, XYLENE, FLUIDAR OR OXSOL100

(d) POT LIFE: when RH equals at least 40%

   6 Hrs @ 45 °F
   4 Hrs @ Ambient (72 ± 6°F)
   1 Hr @ 95 °F

(e) SPECIAL INSTRUCTIONS: MIX WITH ELECTRIC MIXING WAND. DO NOT USE A COMMERCIAL PAINT CAN SHAKER.

VI. APPLICATION:

(a) ENVIRONMENTAL LIMITATIONS:

   SUBSTRATE TEMPERATURE: MIN. 45 °F MAX. 95 °F
   AMBIENT TEMPERATURE: MIN. 45 °F MAX. 95 °F
   MINIMUM SUBSTRATE TEMPERATURE DIFFERENCE ABOVE THE DEW POINT: 5 °F
   PERCENT RELATIVE HUMIDITY: MIN. 40 % MAX. 90 %
(b) FILM THICKNESS (SSPC PA2-73T): PER COAT:

- WET MIN. 17 MILS
- WET MAX. 25 MILS
- DRY MIN. 12 MILS
- DRY MAX. 18 MILS
- TOTAL SYSTEM:
  - DRY MIN. 24 MILS
  - DRY MAX. 35 MILS

(c) DRY TIMES (ASTM D 1640): MIN: 1.5 hour  MAX: 20 hours, depending on relative humidity, ambient temperature and surface temperature (see Drying Times Schedule on following page).

**DURABAK-M26 DRYING TIMES SCHEDULE**

1. **DRY TO RECOAT**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>RH=90%</th>
<th>RH=50%</th>
<th>RH=40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 °F</td>
<td>3 hours</td>
<td>4 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>77 °F</td>
<td>2 hours</td>
<td>3 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>95 °F</td>
<td>1.5 hour</td>
<td>2 hours</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

2. **DRY TO HANDLE**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>RH=90%</th>
<th>RH=50%</th>
<th>RH=40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 °F</td>
<td>12 hours</td>
<td>16 hours</td>
<td>20 hours</td>
</tr>
<tr>
<td>77 °F</td>
<td>6 hours</td>
<td>8 hours</td>
<td>10 hours</td>
</tr>
<tr>
<td>95 °F</td>
<td>4 hour</td>
<td>5 hours</td>
<td>6 hours</td>
</tr>
</tbody>
</table>

3. **MAXIMUM RECOAT**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>RH=90%</th>
<th>RH=50%</th>
<th>RH=40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 °F</td>
<td>30 hours</td>
<td>42 hours</td>
<td>54 hours</td>
</tr>
<tr>
<td>77 °F</td>
<td>24 hours</td>
<td>36 hours</td>
<td>48 hours</td>
</tr>
<tr>
<td>95 °F</td>
<td>18 hours</td>
<td>30 hours</td>
<td>42 hours</td>
</tr>
</tbody>
</table>

4. **CURE TO FULL SERVICE**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>RH=90%</th>
<th>RH=50%</th>
<th>RH=40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 °F</td>
<td>4 days</td>
<td>5 days</td>
<td>7 days</td>
</tr>
<tr>
<td>77 °F</td>
<td>3 days</td>
<td>4 days</td>
<td>5 days</td>
</tr>
<tr>
<td>95 °F</td>
<td>2 days</td>
<td>3 days</td>
<td>4 days</td>
</tr>
</tbody>
</table>

**Notes:**
1. RH is relative humidity. Since this is a moisture-cured product, drying and cure times are RH dependent.
2. Drying times are film thickness dependent. The above schedule applies to a wet film thickness (WFT) of 17 MILS (or 431.8 microns), achieved at the recommended coverage of 30 sq. ft. per coat.

(d) EQUIPMENT REQUIREMENTS: Application by paint roller is preferred, and a disposable paint brush for tight and smaller areas can be used. For Smooth Durabak-M26, use a short nap ¼" mohair or high density foam roller. For textured Durabak-M26, use a special stipple roller with a phenolic core. Stipple Rollers are available from a Durabak-M26 dealer. For tight and smaller areas, use a quality disposable soft paint brush.
(e) SPECIAL INSTRUCTIONS:
IF OVERCOAT WINDOW OF THE PRIMER HAS BEEN EXCEEDED FOR CRITICAL APPLICATIONS: CLEAN THE SURFACE OF ANY CONTAMINANTS OR DEBRIS, AND RE-APPLY THE PRIMER BY FOLLOWING THE PRIMER MANUFACTURER’S INSTRUCTIONS FOR RE-APPLICATION.

IF OVERCOAT WINDOW OF THE PRIMER HAS BEEN EXCEEDED FOR NON-CRITICAL APPLICATIONS: USE 40 GRIT SANDPAPER ON THE PRIMER TO CREATE A SURFACE PROFILE ON AND CLEAN THE ENTIRE AREA WITH A SOLVENT WIPE AFTER SANDING, CLEAN AND PICK UP ALL SANDING RESIDUE AND DEBRIS.

ADDITIONAL DATA/ INSTRUCTIONS:
I. GENERIC TYPE AND DESCRIPTION:
II. MANUFACTURERS DATA:
III. PROPERTIES:
IV. SURFACE PREPARATION MINIMUM REQUIREMENTS: Follow Primer manufacturer’s surface preparation instructions.
V. MIXING PROCEDURES:
VI. APPLICATION: AIR HUMIDITY (AIR MOISTURE): MINIMUM RELATIVE HUMIDITY OF 40% IS REQUIRED FOR DRYING AND CURING

DURABAK – M26 Application Tips

HOW TO APPLY
Before applying DURABAK-M26, it is important that the surface to be coated is completely clean and dry. Mask all areas not to be coated. Remove masking tape after application of second coat, using a razor knife to cut along the taped edge.

ROLLER APPLICATION
Apply first coat of DURABAK-M26 as a thin coat, to fully cover. When touch dry – usually within 1½ to 6 hours – apply second coat. To avoid “mud cracking” or pooling, do not apply DURABAK-M26 too thickly. Between coats, pour a small amount of Xylene, Aromatic 100, Fluidar or OXSOL100 over rollers, so rollers will not dry out. Extreme climactic conditions of heat, humidity and cold will affect drying time.

BRUSH APPLICATION
DURABAK-M26 can be applied with a soft paint brush, in two coats at right angles to one another. (DURABAK-M26 is not a paint, and should be laid onto the surface, in one direction, not brushed out as oil or latex paints.) Between coats, clean brush well with Xylene, Aromatic 100, Fluidar or OXSOL100 only.

COVERAGE
One quart covers a flat area of about 15 square feet in two coats; one gallon covers approximately 60 square feet with two coats, with a final dry coat thickness of approximately 24 mils.

IMPORTANT:
• Other solvents can cause product failure. Do not dilute product or clean rollers, brushes or spray guns with lacquer or alcohol-based thinners.
• Once the consistency of the product has become pasty and unmixable, it should be discarded.
• Normally, DURABAK-M26 can be subjected to light foot traffic within 6 to 12 hours of application. It takes approximately 2 to 4 days to fully cure: Less time in hot humid conditions, and more in cold dry weather. The coating should not be subjected to cleaning or chemical exposure until fully cured. For specific extreme kinds of loading, consult your DURABAK-M26 dealer.

SURFACE PREPARATION

DURABAK-M26 will bond well to properly prepared, clean, thoroughly dry, primed surfaces.

DO’S AND DON’T’S

DON’T:  Shake can to mix. (Rubber granules in textured DURABAK-M26 will not mix evenly.)
DO:  Stir DURABAK-M26 thoroughly before application (preferably with an electric mixer).
DO:  In textured DURABAK-M26, keep rubber granules in suspension by stirring periodically.
DO:  Apply DURABAK-M26 in at least two coats. (Two coats is normally sufficient for most applications.)

SURFACE PREPARATION FOR SPECIAL ADHESION

The following information is provided as a guide only, because substrates can differ significantly. All surfaces should first be tested to ensure adhesion. Contact COTE-L Industries for test design.

ALUMINUM
1. Abrade to obtain rough surface and create profile. Recommend test in a small area for adhesion.
2. Use an etch primer for aluminum which is compatible with overcoating with moisture-cured polyurethanes. Apply during the first third of the recommended overcoat window, after the primer is touch dry.

METAL
All smooth metal should be thoroughly cleaned, aggressively roughened with a 40-grit sandpaper and primed with an etch primer which is compatible with moisture-cured polyurethanes.

CAUTION! When priming metal surfaces, the primer must be fully dry before over coating. Careful attention must be given to manufacturer’s recommended minimum and maximum window of time for over coating primer with polyurethanes. When using primers, a small test must be done to ensure adhesion of primer to DURABAK-M26. Aim for the first third of the recommended window of opportunity for over coating.

THE CARE AND MAINTENANCE OF DURABAK-M26 SURFACES

Once DURABAK-M26 coatings have fully cured, they are very easy to maintain. Because DURABAK-M26 cures to an impermeable membrane, all dirt sits on the surface.

[CAUTION! If dirt sets in on DURABAK-M26 surface while it is soft and before it is cured, it could become permanently imbedded.]

1. Use any general non-chlorinated floor cleaner, from a neutral household cleaner to a common degreaser.
2. IMPORTANT! Use a stiff bristled deck brush to agitate detergent cleaner on the surface. DO NOT USE a cotton or sponge mop. Cotton Mops are not recommended as pieces of mop fabric can get caught on high profile of textured DURABAK-M26 surface.
3. Rinse surface thoroughly to remove all detergent cleaner residue.
4. Remove all water with a sponge mop, towels, or water vacuum.

SPECIFIC CLEANING ISSUES

GREASE SPILLAGE
To clean a DURABAK-M26 surface of a greasy or slippery solution, it is necessary to use a slightly more aggressive detergent, containing a degreaser, available from chemical suppliers.

REMOVAL OF STICKY SUBSTANCES
For removal of gum or other sticky substances from a DURABAK-M26 surface, use a pressure washer. A wide-angle water-pressure spay of 600 to 700 PSI, at an angle of 35-40 degrees, should enable the removal of gum pieces within 10 to 15 seconds without damage to the DURABAK-M26 coating.

REMOVAL OF ORGANIC STAINS
Organic stains, such as leaves, can be removed using a quatinary or a slightly acidic cleaner with a neutral pH. Leave on for five or ten minutes. Rinse off according to manufacturer’s recommendations. This will only work if the stain has occurred after DURABAK-M26 has fully cured.

CHLORINE
If left on the DURABAK-M26 surface, concentrated chlorine will discolor DURABAK-M26. Immediately rinse off the concentrated chlorine with water.

REPAIRING OR OVERCOATING - DURABAK-M26 BONDS TO ITSELF
• Cut out all damaged DURABAK-M26 to eliminate uneven edges.
• Clean dirt from area to be repaired, and prepare the surrounding DURABAK-M26 with 60-grit sand paper.
• Clean area with Xylene, Aromatic 100, Fluidar or OXSOL100.
• On exposed surfaces to which DURABAK-M26 does not bond easily, a primer may be needed.
• Brush, roll, or spray fresh DURABAK-M26 onto cleaned areas, as per application instructions.