

# DURO-FLEECE® COLORS 80-MIL MEMBRANE

**Advantages:**

Duro-Last® Duro-Fleece® Colors 80-Mil (DFC80) membrane is an excellent choice for projects requiring a long lasting roofing membrane. The combination of fleece and the proven performance of Duro-Last roofing membrane results in an ideal product for use in adhered and mechanically fastened applications over a wide variety of roof substrates. A complete line of custom-prefabricated accessories is available for the DFC80 membrane.

**Description:**

In addition to the fleece, DFC80 membrane incorporates a weft-inserted, knitted scrim within PVC films to provide exceptional strength and waterproofing.

**Duro-Fleece membranes must not be used with Duro-Last EV membranes.**

**PVC Film** - Proprietary thermoplastic PVC formulation of resins, plasticizers, stabilizers, biocides, flame retardants, and U.V. absorbents.

- PVC film above weft-inserted scrim – 41 mil

**Weft-Inserted Scrim** - An 18 x 9 polyester fabric construction with weft insertion, composed of 840 x 1000 denier threads, provides superior tear and puncture resistance. The polyester thread is treated to prevent wicking.

**Fleece** - The 3.8-ounce per square yard needle-punched polypropylene fleece provides excellent properties for adhering to, or mechanically fastening over, a variety of substrates. Each roll of membrane has one selvage edge where the fleece is held back 3 inches to provide for hot-air welding to the underlying membrane.

**Total Membrane Thickness** – 80 mil, nominal.

**Overall Thickness (with Fleece)** – 98 mil.

**Weight** – 0.53 lb. per square foot.

**Colors** – Same top and bottom surface color.

\* DFC80 is available in the following colors by special order. Contact sales department for more information.



**R-Value** – 0.1 ft<sup>2</sup>·°F·hr/Btu.

**Packaging** – DFC80 is supplied in the roll sizes shown below. A full pallet contains ten rolls.

**Roll Dimensions:**

| Dimensions      | Estimated Coverage <sup>1</sup> | Roll Weight |
|-----------------|---------------------------------|-------------|
| 10 ft. x 65 ft. | 633 sq. ft.                     | 345 lb.     |
| 5 ft. x 65 ft.  | 308 sq. ft.                     | 173 lb.     |

<sup>1</sup> Assuming 3-inch overlap

**Energy Efficiency:**

|            | CRRC ID   | Solar Reflectance |                | Thermal Emittance |                | Solar Reflective Index (SRI) |                |
|------------|-----------|-------------------|----------------|-------------------|----------------|------------------------------|----------------|
|            |           | Initial           | 3-yr           | Initial           | 3-yr           | Initial                      | 3-yr           |
| Blue       | 0610-0015 | 0.16              | P <sup>1</sup> | 0.89              | P <sup>1</sup> | 13                           | P <sup>1</sup> |
| Copper     | 0610-0016 | 0.19              | P <sup>1</sup> | 0.89              | P <sup>1</sup> | 17                           | P <sup>1</sup> |
| Charcoal   | 0610-0013 | 0.09              | P <sup>1</sup> | 0.86              | P <sup>1</sup> | 3                            | P <sup>1</sup> |
| Green      | 0610-0012 | 0.08              | 0.08           | 0.88              | 0.88           | 3                            | 3              |
| Light Gray | 0610-0018 | 0.46              | P <sup>1</sup> | 0.89              | P <sup>1</sup> | 53                           | P <sup>1</sup> |
| Patina     | 0610-0019 | 0.34              | P <sup>1</sup> | 0.89              | P <sup>1</sup> | 37                           | P <sup>1</sup> |
| Light Tan  | 0610-0014 | 0.72              | P <sup>1</sup> | 0.85              | P <sup>1</sup> | 88                           | P <sup>1</sup> |

P<sup>1</sup> Results pending.

**NSF/ANSI 347 GOLD CERTIFIED**

**Warranty:**

The following warranties are available for projects utilizing DFC80 membrane. Contact Duro-Last for warranty details. **Consequential damage coverage is not available for Duro-Fleece installations.**

| Available Warranties |   |                                |   |                                |
|----------------------|---|--------------------------------|---|--------------------------------|
| <b>Supreme</b>       | Not applicable for this product               |                                |   |                                |
| <b>Ultra</b>         | 15-Year NDL High Wind Warranty                | 20-Year NDL High Wind Warranty | 25-Year NDL High Wind Warranty                | 30-Year NDL High Wind Warranty |
| <b>Basic</b>         | 15-Year NDL Warranty                          | 20-Year NDL Warranty           | 25-Year NDL Warranty                          | 30-Year NDL Warranty           |
| <b>Residential</b>   | 15-Year Residential Material Limited Warranty |                                | 20-Year Residential Material Limited Warranty |                                |

**Codes and Standards:**

Underwriters Laboratories (US & Canada), UL Evaluation Report (ER10128), FM Approvals, Canadian Construction Materials Centre (CCMC 14011-L), State of Florida, Miami-Dade County, Texas Department of Insurance.

**Storage:**

Store rolls lengthwise on pallets. Use tarps to keep rolls dry.

**Membrane Attachment:**

**Adhered** – DFC80 membrane may be adhered to a variety of roof decks, walls, cover boards and insulations. It may be adhered directly to an existing built-up roof (BUR) by using Duro-Fleece Membrane Adhesive or splatter-applied Duro-Grip® CR-20. Adhesion pull tests are required prior to adhering to BUR. The tests must be performed on a 1 x 1-foot area and receive minimum values of 150 pounds per square foot. Refer to the Adhered Duro-Fleece Roofing System Specification for substrate preparation, acceptable adhesives and system requirements.

**Mechanically Fastened** – DFC80 membrane may be mechanically fastened to a variety of roof deck and wall materials. An appropriate slip sheet or cover board may be required. Refer to the Roll Good Mechanically Fastened Roofing System Specification for system requirements.

**Physical Properties:**

DFC80 membrane has been subjected to the tests required by ASTM D4434 “Standard Specification for Poly (Vinyl Chloride) Sheet Roofing” and has been classified as a Type III, internally reinforced sheet with a fabric backing. The results of each test are listed below. ASTM’s Overall Thickness requirements for the membrane are plus or minus 10% (nominal) of the listed Typical Value.

| Physical Property                  | Test Method           | ASTM D4434 Requirement   | Result | Typical Value  |
|------------------------------------|-----------------------|--|--------|--|
| Overall Thickness                  | ASTM D751             | ≥ 0.072 and ≤ 0.088 in.<br>(≥ 72 and ≤ 88 mil)   | PASS   | 0.080 in. (80 mil), nominal<br>(With fleece: 98 mil) |
| Thickness Over Scrim               | ASTM D7635            | ≥ 0.016 in.  | PASS   | 0.041 in. (41 mil)                                   |
| Breaking Strength <sup>1</sup>     | ASTM D751 Grab Method | ≥ 200 lbf./in.   | PASS   | 545 x 376 lbf./in.                                   |
| Elongation <sup>1</sup>            | ASTM D751 Grab Method | ≥ 15%  | PASS   | 34% x 33%  |
| Seam Strength                      | ASTM D751 Grab Method | ≥ 408 lbf.<br>(75% of Breaking Strength)   | PASS   | 512 lbf.   |
| Tear Strength <sup>1</sup>         | ASTM D751 Procedure B | ≥ 45 lbf.  | PASS   | 70 x 211 lbf.  |
| Low Temp. Bend                     | ASTM D2136            | Must pass at -40° F  | PASS   | PASS   |
| Heat Aging                         | ASTM D3045            | Conditioned for 56 days in oven<br>maintained at 176° F  | PASS   | PASS   |
| Accelerated Weathering             | ASTM G155             | 10,000 hours total test time.<br>Irradiance level of 0.35 W/m <sup>2</sup> -340nm.<br>Cycle: 102 minutes light, 18 minutes<br>light + H <sub>2</sub> O spray, 63±2.5° C black<br>panel, 30±5% RH | PASS   | PASS   |
| Dimensional Stability <sup>1</sup> | ASTM D1204            | Conditioned for 6 hours in oven<br>maintained at 176° F.<br>Allowable change: ≤ 0.5%   | PASS   | -0.10% x -0.10%                                      |
| Water Absorption                   | ASTM D570             | Immersed in water at 158° F<br>for 168 hours.<br>Allowable weight change: ≤ 3%   | PASS   | 0.10%  |
| Static Puncture                    | ASTM D5602            | ≥ 33 lbf.  | PASS   | ≥ 33 lbf.  |
| Dynamic Puncture                   | ASTM D5635            | ≥ 14.7 ft-lbf.   | PASS   | ≥ 14.7 ft-lbf.                                       |

<sup>1</sup> Typical values are shown for both machine and cross machine directions. The machine direction results are listed first.

**Additional Tests**

|                             |                             |                                      |
|-----------------------------|-----------------------------|--------------------------------------|
| Fungi Resistance            | ASTM G21                    | No Sustained Growth or Discoloration |
| Moisture Vapor Transmission | ASTM E96, Proc. B, Method A | < 0.35 U.S. perms                    |

