

TECHNICAL DATA SHEET

DELTA®-FL

The Warm & Dry Floor System.

MATERIAL

DELTA®-FL plastic subfloor is a vapor barrier made up of a special virgin high-density polyethylene resin (HDPE), providing a dimpled surface with high compressive strength, impact resistance and long-term performance.

PROPERTIES

DELTA®-FL is a uniquely dimpled, heavy-duty gray membrane that helps keep the basement feeling dry and comfortable. DELTA®-FL is effective on below grade basement floors and slab-on-grade concrete floors. The membrane is installed with its dimples down to create an air space above the slab. It can be covered with laminate floor systems, or with a plywood subfloor topped off with carpet or vinyl flooring. DELTA®-FL protects moisture sensitive materials on concrete floors by providing a reliable capillary break and vapor barrier. The air-gap created by DELTA®-FL allows the water vapor pressure above and below the concrete slab to equalize, while preventing the moisture from migrating further inward. Hence, moisture does not affect the flooring material and the basement area stays dry and comfortable. DELTA®-FL is made from special 100% virgin HDPE that does not off-gas and is odor free, unlike recycled membranes that may give off unpleasant odors. The membrane also provides a thermal break. DELTA®-FL is an inert material that does not support mold or mildew growth. The air-gap membrane has outstanding compressive strength of 5,200 psf (250 kN/m²) and can withstand heavy loads.

APPLICATION

DELTA®-FL is an effective vapor barrier and may be used in conjunction with wood laminate floors and many other common floor coverings. The light-weight product comes in two roll sizes, as well as easy-to-handle sheets. Once DELTA®-FL and minimum 7/16" plywood or OSB sheets are installed, a variety of floor coverings may be used:

- laminate floors (floating directly on top of DELTA®-FL)
- carpeting with underlay (on top of plywood or OSB)
- vinyl flooring (on top of plywood or OSB)
- hardwood flooring (on top of plywood or OSB)

Seams are taped with DELTA®-MOISTUREPROOF TAPE and the perimeter is sealed with low expansion foam to ensure that moisture cannot migrate inward through the joint areas, penetrations, or termination details.

DELTA® products support sustainable and energy-efficient building practices, including efforts toward achieving LEED® certification (LEED® for New Construction & Major Renovations, LEED® for Core and Shell, LEED® for Existing Buildings and LEED® for Homes).

For technical support, call our technical support team at 1-888-4DELTA4 (1-888-433-5824) extension 326, or visit www.dorken.com.

Technical Data

Product name	DELTA®-FL	
Color	gray	
Material	Special virgin high-density polyethylene stabilized (oxidation & UV)	
Dimple height	5/16" (8 mm)	
Compressive strength	approx. 4,500 psf (217 kN/m ²)	ASTM C695-02a
Water vapor transmission	< 1.69 ng/(Pa s m ²)	ASTM E96, Method A
Vapor permeance	< 0.02 perms [grains/h/ft ² /in Hg]	ASTM E96, Method A
Air-gap volume between dimples	approx. 5.3 l/m ²	ASTM D4716-08
Toxicity	non-toxic, non-polluting, non-allergenic, odor free	
Chemical properties	Excellent resistance to chemicals	
Temperature range	-22°F to +176°F (-30°C to +80°C)	
Roll dimensions	4' 9" x 68' 6" (1.46 m x 20.9 m) 328 ft ² (30.5 m ²)	
	3' 6" x 30' (1.07 m x 9.14 m) 105 ft ² (9.7 m ²)	
Service life expectancy	> 25 years (at pH between 4 and 9, and temperature below 77°F / 25°C). Do not expose to UV light for more than 30 days.	

