



## Technical Information Sheet

<b>Product name</b>	<b>Thermoplastic Polyolefin (TPO) waterproof membrane</b>		<b>Meets or exceeds ASTM D6878 Specification</b>
<b>Thickness</b>	<b>Reinforced, 60mil</b>		<b>10'x100' White</b>
<b>Property</b>	<b>ASTM Standard</b>	<b>Performance Min.</b>	<b>Performance</b>
Thickness Overall	ASTM D6878	-10%,+15%mm	1.52mm
Breaking Strength	ASTM D6878	220 lbf	290 lbf (1,735 N)
Elongation Break of Reinforcement	ASTM D751	≥15%	27%
Tearing Strength	ASTM D751	55 lbf (245N)	120 lbf (534 N)
Ozone Resistance	ASTM D1149	No Cracks	No Cracks

Brittleness Point	ASTM D2137	-40°F (-40°C)	Pass
Solar Reflectance Index	ASTM E1980	82	99

duKe FlexShield TPO is reinforced with a polyester fabric insert, and is used in mechanically attached, induction welded, and fully adhered roofing systems. duKe TPO meets and exceeds requirements of ASTM D6878 Standard Specification for Thermal Plastic Polyolefin roofing. Our focus is delivering high-quality membrane at a cost-saving advantage.

## duKe FlexShield TPO Roofing Membrane Warranty Information:

### 20-Year Material-Only Limited Warranty\*\*

### Warranty Coverage

duKe FlexShield® warrants that its **FlexShield TPO Roofing Membrane** will be free from manufacturing defects in material that cause premature failure under normal and proper use, installed by a certified contractor, for a period of **twenty (20) years** from the date of purchase.

This warranty applies **to the TPO roofing membrane material only**.

### Product Standards

duKe FlexShield® TPO Roofing Membrane is manufactured to meet or exceed the requirements of **ASTM D6878**, the standard specification for reinforced thermoplastic polyolefin (TPO) roofing membranes. This standard covers key performance criteria, including but not limited to:

- Tensile strength
- Seam strength
- Dimensional stability
- Weather resistance

## Warranty Limitations

This is a **material-only warranty**. At this time, duKe FlexShield does **not** offer a full roofing system warranty.

This warranty **does not cover**:

- Workmanship or installation errors
- Labor costs for removal or replacement
- Damage caused by improper installation, misuse, abuse, or neglect
- Use of components, accessories, or materials manufactured by other brands
- Roofing systems that incorporate products not supplied or approved by duKe FlexShield
- Damage caused by acts of God, including but not limited to hail, wind, hurricanes, lightning, fire, floods, or extreme weather conditions
- Ponding water, chemical exposure, or structural movement

## Exclusions

This warranty does **not** apply if the duKe FlexShield TPO Roofing Membrane is:

- Installed in violation of applicable building codes or manufacturer recommendations
- Not installed by a certified TPO roofing membrane contractor
- Altered, modified, or repaired without written authorization from duKe FlexShield
- Used in combination with roofing components or systems not manufactured or supplied by duKe FlexShield

## Remedy

If a manufacturing defect is confirmed during the warranty period, duKe FlexShield's sole obligation, at its discretion, will be to:

- Repair the affected membrane, or
- Replace the defective membrane material, or
- Provide a refund not to exceed the original purchase price of the defective membrane

No other remedies, including consequential or incidental damages, are covered.

## Disclaimer

This warranty is issued **in lieu of all other warranties**, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose.

## Future Systems

duKe FlexShield is actively working toward offering a complete roofing system and expanded warranty options in the future. Until such time, warranty coverage remains **limited strictly to the duKe FlexShield TPO roofing membrane material only**.

## Membrane Specifications

- **Thickness:** 60 mil
- **Roll Size:** 10 ft x 100 ft
- **Color:** White (standard), reflective for energy efficiency
- **Reinforcement:** Polyester scrim reinforced

## Surface Preparation

1. Roof deck must be clean, dry, smooth, and free of debris.
2. Remove loose materials, oils, grease, and sharp objects.
3. Ensure deck is structurally sound and properly sloped for drainage.
4. Install approved insulation and cover board per project requirements.
5. All substrates must meet manufacturer requirements prior to membrane installation.

## Installation Methods

### 1. Mechanically Attached System

- Secure membrane using approved fasteners and plates along the membrane seams.

- Fastener spacing must comply with manufacturer specifications and local wind uplift requirements.
- Overlap seams and hot-air weld to achieve a continuous watertight seal.

## **2. Fully Adhered System**

- Apply approved bonding adhesive evenly to both membrane and substrate.
- Allow adhesive to flash off per manufacturer guidelines.
- Roll membrane into adhesive and broom in to ensure full contact.
- Weld seams using hot-air welding equipment.

## **3. Induction-Welded System**

- Fasteners and plates are installed beneath the membrane.
- Induction welding equipment is used to bond the membrane to the plates.
- All seams are hot-air welded after induction process.

## **Environmental Conditions**

- Do not install during precipitation or when surfaces are wet.
- Installation temperatures must meet manufacturer minimums.

## **Maintenance Recommendations**

- Inspect roof annually and after severe weather events.
- Keep roof surface free of debris.
- Repair punctures or seam damage promptly using compatible TPO materials.