



eXo Shield

Ultra-thin polyurethane film deposition provides an ingress protection rating of IP54 for all of our TivoTape™ products. eXo Shield Protects the LEDs and electronics from nominal moisture and dust, letting LEDs run cooler, thus living longer. This results in a brighter fixture with no color shift due to dust and dirt, while coating remains clear and flexible.

What does IP54 rating mean?

First Digit (intrusion protection)

1. No special protection
2. Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50mm in diameter.
3. Protection against fingers or other object not greater than 80mm in length and 12mm in diameter.
4. Protection from entry by tools, wires etc, with a diameter of 2.5 mm or more.
5. Protection against solid bodies larger than 1mm (eg fine tools/small etc).
6. Protected against dust that may harm equipment.
7. Totally dust tight.

Second Digit (moisture protection)

1. No protection.
2. Protection against condensation
3. Protection against water droplets deflected up to 15° from vertical
4. Protected against spray up to 60° from vertical.
5. Protected against water spray from all directions.
6. Protection against low pressure water jets (all directions)
7. Protection against strong water jets and waves.
8. Protected against temporary immersion.
9. Protected against prolonged effects of immersion under pressure.

For indoor applications IP67 (outdoor rating) would be overkill:

6. Protected against dust that may harm equipment.
7. Protection against strong water jets and waves.

If the indoor tape did not have eXo Shield it would be IP20

2. Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50mm in diameter.
0. Zero protection from water ingress.