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IP Ratings for Flexible LED Strips

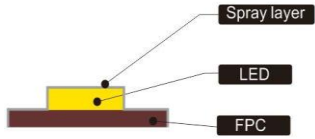

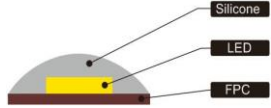



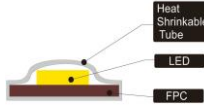

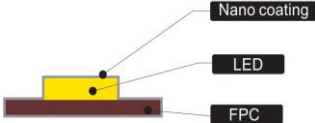
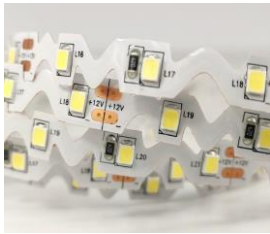
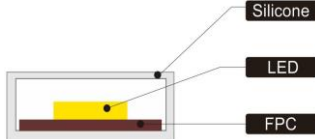

Ingress Protection or IP rating is an International Standard EN 60529-defined rating system used to measure the degree of protection of any electrical devices against foreign bodies (dust, wires, etc.) and moisture (water). It is a two-digit grading system where the first digit denotes protection against solid ingress and the second digit for liquid ingress.

The IP rating is a significant factor when purchasing electronic devices, including light fixtures or LED strips, for example, when installing lights outdoors, you must ensure they are dust and water-resistant and can withstand rain and other extreme weather conditions. However, when you need indoor lighting, it doesn't necessarily require waterproof features.

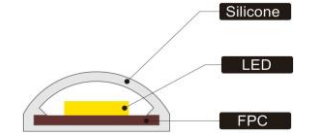

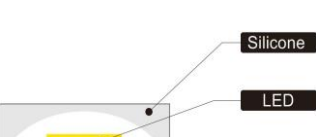
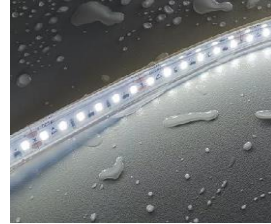
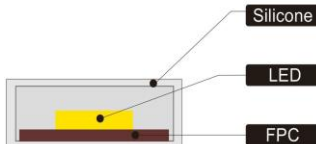
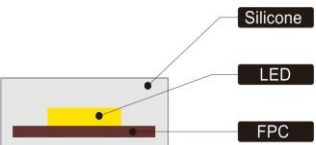


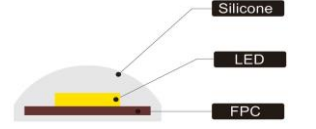

IP Rating	Appropriate Environment	Type Of Light
IP20 & IP40	Indoors(relatively neutral environment)	LED linear lights, LED strips, etc.
IP54	Indoor(partial dust and water resistant)	Bollard Lights, indoor LED lights, etc.
IP65	Outdoor(tight-dust protected, can withstand rain)	Wall washer light, flex wall washer, bollard lights, LED strips, etc.
IP67 & IP68	Outdoor(can submerge in water; ideal for the pool or fountain lighting)	LED strips, floodlights, etc.

Value	First Digit	Second Digit
	Protection against ingress of solids	Protection against ingress of liquids
0	No protection	No protection
1	Protected against solid objects over 50mm e.g. hands	Protected against vertically falling drops of water.
2	Protected against solid objects over 12mm e.g. hands, large tools.	Protected against direct sprays of water up to 15° from vertical.
3	Protected against solid objects over 2.5mm e.g. wires, small tools.	Protected against direct sprays of water up to 60° from vertical.
4	Protected against solid objects over 1.0mm e.g. wires.	Protected against water sprayed from any direction. Limited ingress permitted.
5	Limited protection against dust ingress (no harmful deposit)	Protected against low pressure water jets from any direction. Limited ingress permitted.
6	Totally protected against dust ingress.	Protected against high pressure water jets from any direction. Limited ingress permitted.
7		Protected against immersion between 15cm and 1M.
8		Protected against long periods of immersion under pressure.

Waterproof protection for Flexible LED strips

IP Rate	Structure	Waterproof Type	FPC width	Picture
IP53		Silicone spray waterproof	6 mm	
			8mm	
			10mm	
			12mm	
			15mm	
IP65		Silicone Gel Coating Waterproof	8mm	
			10mm	
			12mm	
IP65		PU Glue Coating Waterproof	8mm	
			10mm	
			12mm	
IP65		PE Shrinking Tube Waterproof	8mm	
			10mm	
			12mm	
IP66		Nano Coating Waterproof	5mm	
			8mm	
			10mm	
			12mm	
			15mm	
IP67		Silicone tube Waterproof	5mm	
			8mm	
			10mm	
			12mm	
			15mm	
			20mm	

Waterproof protection for Flexible LED strips

IP67DH		Silicone Extrusion Waterproof	8mm	
			10mm	
			12mm	
IP67SH		Silicone Extrusion Waterproof	8mm	
			10mm	
			12mm	
IP68		Silicone Tube With Silicone Glue Filling Waterproof	8mm	
			10mm	
			12mm	
IP68S		Silicone Extrusion Waterproof	8mm	
			10mm	
			12mm	
IP68 PU		IP68 PU Waterproof	8mm	
			10mm	
			12mm	
IP68DH		Silicone Extrusion Waterproof	8mm	
			10mm	
			12mm	