

The materials used on LED ITALY products have been subjected to the following tests:

Type of resins	Type of resins IK10	Type of support	
Transparent	Transparent (XPZ585+XHZ185)	Stainless steel	
Opal	Opal (PU 1308 Opal 0.15%)	PVC	
TEST	NORM	EXECUTION	RESULT
Gloss at 60°	UNI EN ISO 2813	Gloss value at 60°	Compliant
Neutral salt spray	ISO 7253	Exposition 1500 h, purity degree of salt 99,5% NaCl in solution with demineralized water; Electric conductivity < 20 µS/cm, concentration of test solution 50 ± 5 g/l	Checked cracking, blistering or water adsorption. Compliant
Humidity Chamber	UNI EN ISO 6270	Exposition 1500 h, at 50°C RH>95% in constant saturated atmosphere	No cracks, blistering, softening of the resin layer, no gloss variation or water adsorption. Compliant
Resistance to immersion in the following liquids:			
Swimming pool	N.A.	5 ppm sodium hypochlorite, derived from the hydrolysis of the pool disinfectant (sodium dichloroisocyanurate 56%) approx. pH 7 (obtained with sodium bisulphate hydrolysed in sulfuric acid)	No softening, color change or deformation of the resin film. Compliant
Water	ISO 2812 - part 1 method 1	Exposition 250 h at 25°C	Resin layer unaffected, no changement or softening. Compliant
Hydrochloric Acid	ISO 2812 - part 1 method 2	Exposition 240 h - sol. 8,5% at 20°C	Resin layer unaffected, no absorption, change or softening. Compliant
Sodium Hydroxide	ISO 2812 - part 1 method 2	Exposition 240 h - sol. 20% at 20°C	Resin layer unaffected, no absorption, changement or softening. Compliant
Isopropyl Alcohol	ISO 2812	Exposition 48 h at 20°C	Film slightly modified, no softening, mass alteration (-5-6%)
Stone chipping	ASTM D 3170	Resistance to stone and gravel chipping. ASTM D 3170: ≤7B	Compliant
QUV Test	ISO 16474	Exposition 1000h - ΔE check	Compliant
Heat Resistance	MS CG-12	Exposition 500 h at 80°C	Resin layer unaffected, no deformation, colour changement or softening. Compliant
Resistance to High Temperature	GM 6073	Exposition 1 h at 93°C	Resin layer unaffected no deformation, color changement or softening. Compliant

The materials used on LED ITALY products with hard resin have been subjected to the following tests:

IK10 Test	IEC 62 262	Impactor regulated 20 joules of energy. Radius 50 mm, 5 kg of mass, height of drop 400mm	No breaks. Compliant
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