LaminaHeatSafeTech EGS

Underfloor Heating Film

Product Introduction

LaminaHeat SafeTech-EGS is a 220-240V all-electric floor heating solution from LaminaHeat.

SafeTech-EGS demonstrates exceptional adhesion to a wide range of floor adhesives and coatings.This enables the SafeTech-EGS heating film to be applied not only to various floor types — including wood flooring, marble, and ceramic tiles—but also to be embedded into diverse substrates without any risk of poor contact.

As a result, the SafeTech-EGS heating film can be tightly bonded to the surface. Furthermore, our heating film provides uniform heating across the entire surface. These two key advantages establish it as the fastest and safest underfloor heating solution available on the market.

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Dielectric Strength	Dielectric Strength	>1.5 kv
	Dielectric Constant @ 1Hz	7.0
	Dielectric Constant @ 1 MHz	0.006
Physical Properties	Material	E Fibreglass
		PETG film
		Fire-Resistant Material
		Carbon Fiber Layer
		Insulation Layer
	Grounding	Aluminum Grounding Layer
Thermal Properties	Maximum OperatingTemperature	70℃
	Thermal Expansion	11x10-6cm/cm/°C
	Thermal Conductivity	0.04W/m °K
Mechanical Properties	Heating Conductor Thickness	0-150 μm
	Maximum Tensile Strength	250 MPa
	Elongation at Break	4.8%
	Tensile Modulus	6 Gpa
	Copper Busbar Cross Section	20mm x 0.050mm

UL 2683 is the safety standard for heating membranes (electric floor heating, wall heating, etc.) in North , Electrical insulation (withstand voltage 1500V AC for 1 minute, insulation resistance ≥100MΩ)) 、 Leakage Current ≤ 0.75mA, Overload Protection (110% Voltage for 7 Hours, No Abnormalities); Mechanical Strength (Resistant to Bending and Compression)、Waterproof (IPX4 Damp Environment); Temperature Control (Surface ≤80°C, Concealed Installation ≤90°C) and Overheat Protection (Automatic Power Off); Material Flame Retardant (UL 94 V-0/V-1); Marking must include power, warning, and installation manual clearly specifies laying specifications.

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Product Parameters

LaminaHeat SafeTech EGS Underfloor Heating Film						
Product Number	EGS21-220-220-600x1500	EGS21-220-220-900x1500	EGS21-220-220-900x2000	EGS21-220-160-600x1500	EGS21-220-160-900x1500	EGS21-220-160-900x2000
power density	220 W/sqm	220 W/sqm	220 W/sqm	160 W/sqm	160 W/sqm	160 W/sqm
voltage input	220v	220v	220v	220v	220v	220v
power	181.5W	270W	377W	132W	196W	281W
Copper width	20mm	20mm	20 mm	20mm	20mm	20 mm
Material Width	1500mm	1500mm	2000mm	1500mm	1500mm	2000mm
Heating Width	1450mm	1450mm	1950 mm	1450mm	1450mm	1950 mm
Length	600mm	900mm	900mm	600mm	900mm	900mm
Heating length	580mm	880mm	880 mm	580mm	880 mm	880 mm
current	0.83 A	1.23 A	1.76A	0.6A	0.89A	1.28 A
Max Amp	16A	16A	16A	16A	16A	16A
Max Installed Wattage	3500w	3500w	3500W	3500w	3500w	3500w
weight	1.4kg/m2	1.4kg/m2	1.4kg/m2	1.4kg/m2	1.4kg/m2	1.4kg/m2
dielectric strength	5 KV/mm	5 KV/mm	5 KV/mm	5 KV/mm	5 KV/mm	5KV/mm
maximal operating temperature	70°C	70°C	70°C	70°C	70°C	70°C
thickness	1.4 mm	1.4 mm	1.4mm	1.4 mm	1.4 mm	1.4mm
Current per system	0.825	1.23A	1.76 A	0.6A	0.89A	1.28 A
Resistance per system +/-10% Ω	258.82	178.86	125.36	366.67	247.19	171.88
Quantity of heaters / segments	2	2	2	2	2	2

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Component 2: LaminaHeat SafeTech EGS Underfloor Heating Membrane Connection System

Standard Voltage Waterproof Connection System				
Product Name	Combination Type/Specification	Image	Specification	Each main set is long
EGS waterproof electrical connector	One end: male One end: bare wire		AM24	1m
EGS waterproof electrical connector	Male-female extension cord		AM24	0.5m
EGS waterproof electrical connector	Male-female extension cord		AM24	1m
EGS waterproof electrical connector	Male-female extension cord		AM24	1.5m
EGS waterproof electrical connector	Single T-type tee connector(with male and female connectors on left and right)		AM24	16cm
Three-core *1.5㎡ insulated protective layer CE wire maximum current 16A waterproof rating IP67				

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