

# Technical Data Sheet

Date | 12.06.2017  
Release No. | 5

## Product Composition Description

The Lumitred polymer composition is a unique Co-polymer blend utilising ethylene-propylene rubber with homo-polypropylene. This grade is suited for sheet extrusion and combined give off a hard wearing, durable plastic compound. The Lumitred blend is suitable for interior and exterior use. Testing shows good impact resistance at low temperatures.

## Special Properties

- Charging to generate strong luminance can be less than 10 seconds depending on light source intensity.
- Tredsafe Lumitred meets AS/NZS building code requirements.
- Reduces power costs and is a cheaper, 100% reliable alternative to emergency egress requirements.
- Tredsafe Lumitred inserts glow over twice as bright as our previous models.
- Homogenously infused during manufacture process means the Tredsafe Lumitred performance lifespan is at an all time high

## Fields of Application

- Exceptional weather and light fastness make Tredsafe Lumitred inserts suitable for interior and exterior usage.

## Technical Data

Description	Tredsafe Lumitred
Chemical Identity	Europium doped Strontium Aluminate
Colour	Green
Peak Wavelength	520nm
Afterglow Brightness (Measured in Milli Candelas after 10 mins excitation)	455 mcd/M <sup>2</sup>
Afterglow duration (Time taken to reach an afterglow of 0.32 mcd/m <sup>2</sup> )	>3000mins
Highly Visible Afterglow duration	>600mins
Light Fastness	Excellent
Chemical stability	Excellent
UV Stability	MLLNA-311
Intended Use	Light Stability of Polyolefin Polymers
Loading	2%
Anti-slip resistance	
Mean BPN	48
Mean CoF	0.51
Anti Slip Classification (Wet)	P4
Test Methods in accordance	AS/NZS 4586. 2004 appendix A (Pendulum Swing test)
Coefficient of Friction test	AS/NZS 3661.1 : 1993 Slip resistance of pedestrian surfaces

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## Physical Properties

Physical	Test Method	Nominal Value	Test Method	Nominal Value
Melt Flow Index	ISO 1133	1.0 g/10min	ASTM D1238	1.0 g/10min
Density	ISO 1183	0.90 g/cm <sup>3</sup>	ASTM D792	0.9 g/cm <sup>3</sup>
<b>Mechanical</b>				
Tensile Stress (Yield)	ISO 527-1	290 kgf/cm <sup>2</sup> 28 Mpa	ASTM D638	290 kgf/cm <sup>2</sup> 31 Mpa
Tensile Strain (Break)	ISO 527-1	>100 %	ASTM D638	>100 %
Flexural Modulus	ISO 178	13,500 kgf/cm <sup>2</sup> 1,323 Mpa	ASTM D790	13,500 kgf/cm <sup>2</sup> 1,320 Mpa
<b>Impact</b>				
Notched Izod Impact Strength (23°C)	ISO 180	40 kgf.cm/cm 392 J/m	ASTM D256	40.0 kgf.cm/cm 490 J/m
Notched Izod Impact Strength (10°C)	ISO 180	- kgf.cm/cm - J/m	ASTM D256	4.5 kgf.cm/cm 44 J/m
<b>Thermal</b>				
Heat Deflection Temperature (4.6kgf/cm <sup>2</sup> )	ISO 75-1	112°C	ASTM D648	110°C
Vicat Softening Point	ISO306	153°C		
<b>Additional Property</b>				
Flammability	UL94	HB	UL94	HB

Information given in this data sheet is based on the current state of knowledge. This does not exempt the purchaser from carrying out his own careful inspections of incoming goods and their suitability for local building codes. We reserve the right to make changes to the product data in the course of technical progress or due to operationally related further development. Owing to factors beyond our control during application, recommendations given in this data sheet require tests and experiments by the customer. Our recommendations do not exempt the customer from the obligation to check any infringements of third-party rights himself and eliminate them if necessary. The suggestions for product use are not equivalent to a warranty of its suitability for the recommended purpose.

Each new release of this data sheet supersedes the previous one.