

# Starflam® X-Protect

## Next-generation fire protection and heat-resistant polyamides

Starflam X-Protect is a flame-retardant polyamide technology that advances both safety and performance. Parts made with X-Protect offer extreme temperature resistance well beyond typical FR materials. In testing, X-Protect withstood direct flame exposure at 1100C for 15 minutes.

### Highlights



Mechanical integrity at temperatures >350C, far beyond the melting point of standard PA66 resin



Replaces high-heat thermoplastics and thermoset applications



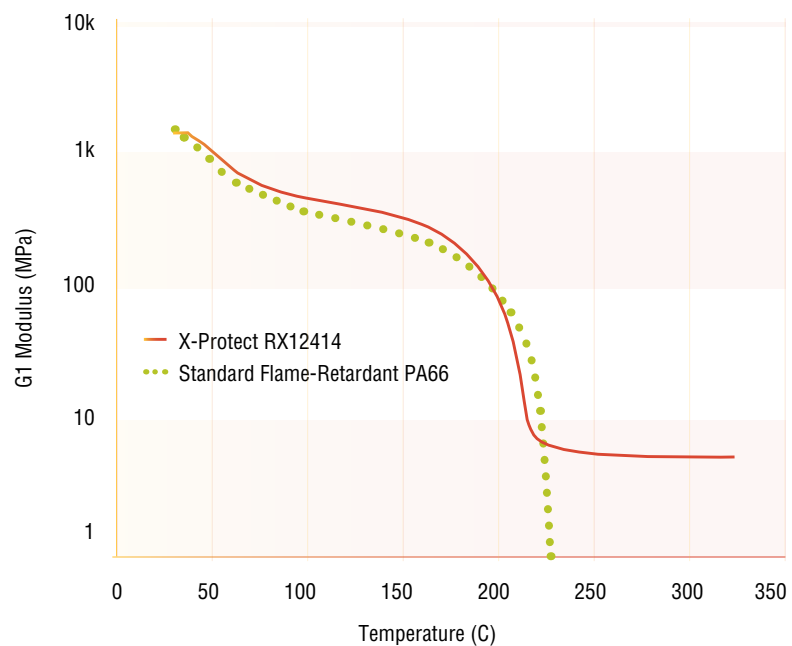
Improved abrasion resistance



Improved ultrasonic weld line strength

X-Protect parts maintain their integrity during thermal runaway and electrical arcs; making them ideal for electric vehicles, industrial power management, metal-welding applications and lead-free soldering processes. X-Protect is bright colorable and can be molded using the same equipment under similar process conditions as standard polyamides.

### X-Protect extends the melting point of PA66



	Test Method (Units)	RF0067K	RX12414	RF0023K
GF/Filler System	ISO1043-1; -2 (%)	GF30	0	(GF+MD) 60
FR System	ISO1043-4	FR(40)	FR(40)	FR(61)
Burn Category	UL 94 IEC 60695-11-10	V-0 @ 0.8 mm	V-1 @ 0.8 mm	V-0 @ 1.6 mm
GWFI	IEC 60695-2-12 (°C)	960	960	960
GWIT ≥ 0.8 mm	EIC 60695-2-13 (°C)	800	—	—
CTI	IEC 60112 (V)	575	600	600
EN 45545 rating	—	R22: HL3	—	—

[Click here to view technical data sheets](#)

## Applications

- / Electrical applications where arcing is occurring
- / Metal welding applications replacing thermosets
- / Bearings improved abrasion resistance
- / Battery components critical to manage a thermal runaway like barriers, HV insulators, structural elements, vents and pressure relief valves



Flame test video

## 1100°C direct flame 1,4 kW power

[Watch the full test here](#)

3 MINUTES



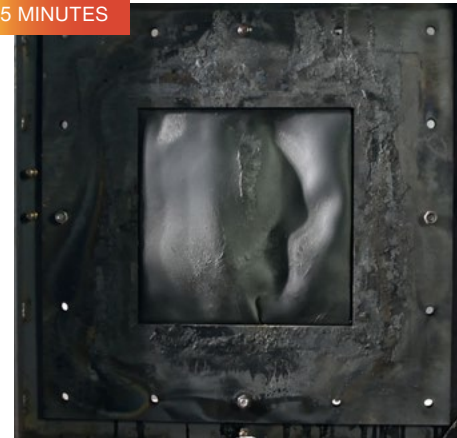
Standard Flame-Retardant PA66 (3mm) Breached in less than **3 minutes**

4 MINUTES



6061 T651 Aluminum (3mm) Breached in less than **4 minutes**

15 MINUTES



X-Protect RF0067K PA66 (3mm) Sustains direct flame for **15 minutes**

**For more information, contact our expert applications specialists or visit [ascendmaterials.com](http://ascendmaterials.com).**

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REV 10/2022