



Scott Bader Crestapol resins.

- Achieving the highest Fire, Smoke & Toxic Fume International standards.**

Scott Bader – Common Ownership Company

- **Totally independent company with no external shareholders**
- **Able to think and act long term as a business- est 1921.**
- **Establish & maintain long term partnerships with customers and suppliers**
- **Balance business needs with social, charitable and environmental obligations for sustainability**
- **High integrity, honest and trustworthy**
- **Longstanding relationship with Andercol, Columbia & Novapol, Brazil.**

Scott Bader Global Company Locations

www.scottbader.com





Crestapol 1212

**High Performance Resin for highest fire
smoke & toxic fume applications.**

- **Tough, low viscosity Urethane Methacrylate resin for Pultrusion and Closed Mould applications.**
- **Can be heavily filled with ATH for very high Fire, Smoke and Toxic Fume performance**
- **High toughness for demanding applications**



Suitable Manufacturing Techniques & Markets

- **Pultrusion**
- **Closed Mould**
 - Resin Transfer Moulding
 - Infusion... .
- **Off shore**
- **Transport**
- **Building and construction**
- **Marine**
- **Wind energy**





Crestapol 1212 – Resin Properties

Liquid resin properties

Density (25°C)

1.07 g/cm³

Viscosity (ICI cone & plate, 25°C)

0.7 poise

Cast resin properties

Heat Deflection Temperature (HDT)

87°C

Ultimate Tensile Strength

71 MPa

Elongation at break

5.8%

Tensile modulus

2.9 GPa

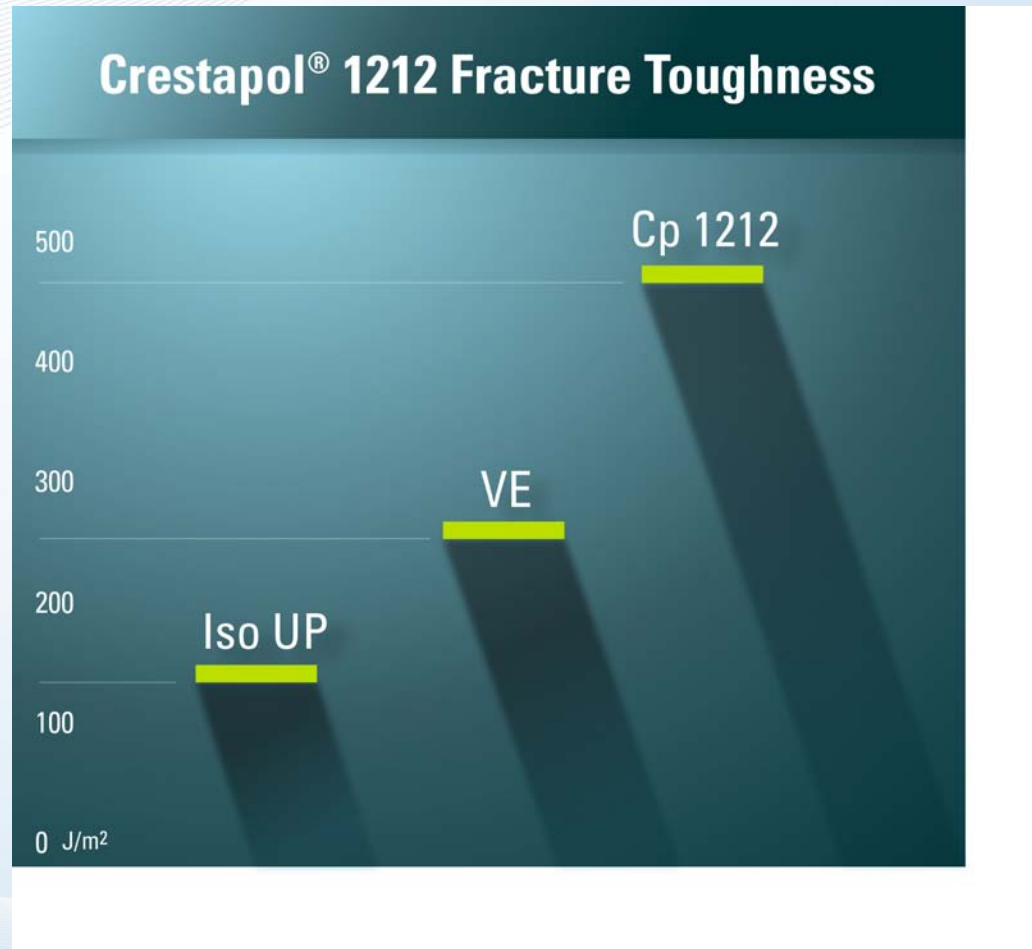
Toughness, G_{IC}

450 (J/m²)

Barcol hardness

40

Crestapol 1212 – Fracture Toughness



Fire performance of Crestapol 1212 is achieved by addition of Aluminium Trihydrate.

Accredited to the *Highest standards:-*

***French/ Spanish ‘Epiradiateur’ M1, FO
ISO 5658-2***

BS 6853 Annex B 2

ASTM E162/ E662/ E84

DIN 5510

EN 45545 (FIRESTARR)

BSS 7239

UL94



- **NBR 15708** Fire, Smoke & Toxic fume specification.
- Flame propagation- **ISO 5658-2.**
 - CFE (critical flux at ext) $\geq 20 \text{ kW/m}^2$
 - Qsb (heat for sustained burning) $\geq 1.5 \text{ MJ/m}^2$
 - Qt (total heat dev) $\leq 0.7 \text{ MJ}$
 - Qp (heat dev peak) $\leq 4.0 \text{ kW}$

- **NBR 15708** Fire, Smoke & Toxic fume specification
- Smoke propagation- ISO 5659-2 (NBS smoke box)
 - Dm <**200** (covered applications)
 - Dm <**400** (uncovered applications).

- **NBR 15708** Fire, Smoke & Toxic fume specification.
- **Toxic gas limits - ISO 5659-2**
 - CO 1450ppm
 - HCl 600ppm
 - HF 600ppm
 - HBr 600ppm
 - NOx 350ppm
 - HCN 140ppm
 - SO2 120ppm

- Flame propagation-
ISO 5658-2.

- CFE $\geq 20 \text{ kW/m}^2$

- Qsb $\geq 1.5 \text{ MJ/m}^2$

- Qt $\leq 0.7 \text{ MJ}$

- Qp $\leq 4.0 \text{ kW}$

- ***Crestapol 1212
profile***

34.3 Kw/m²

8.98 MJ/m²

0.3 MJ

1.88 kW

- Smoke propagation-
Smoke box (ASTM
E662)

- Dm <**200** (covered
applications)
- Dm <**400** (uncovered
applications).

{NBR 15708 limits}

- ***Crestapol 1212
profile***

Dm 160 (flaming)

Dm 119 (non flaming)



NOVAPOL

Plásticos • Distribuidora

- Toxic gas limits - ISO 5659-2

- ***Crestapol 1212 profile***
- ***DD CEN/TS 45545-2***

– CO	1450 ppm	<i>573 ppm</i>
– HCl	600 ppm	<i>0 ppm</i>
– HF	600 ppm	<i>0 ppm</i>
– HBr	600 ppm	<i>0 ppm</i>
– NOx	350 ppm	<i>5 ppm</i>
– HCN	140 ppm	<i>6 ppm</i>
– SO2	120 ppm	<i>0 ppm</i>

- ***Crestapol 1212***
 - ***accredited to the highest Fire, Smoke & Toxic Fume performance International standards and supplied to lead Technical pultruders globally (Brazil, USA, China, Malaysia, Europe..).***



**More information on these and other
Scott Bader products are available
on the Novapol stand
C6**

Thank you for your attention

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Crestapol resins.**

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