#### **CORK BASED ABLATIVE THERMAL PROTECTION**

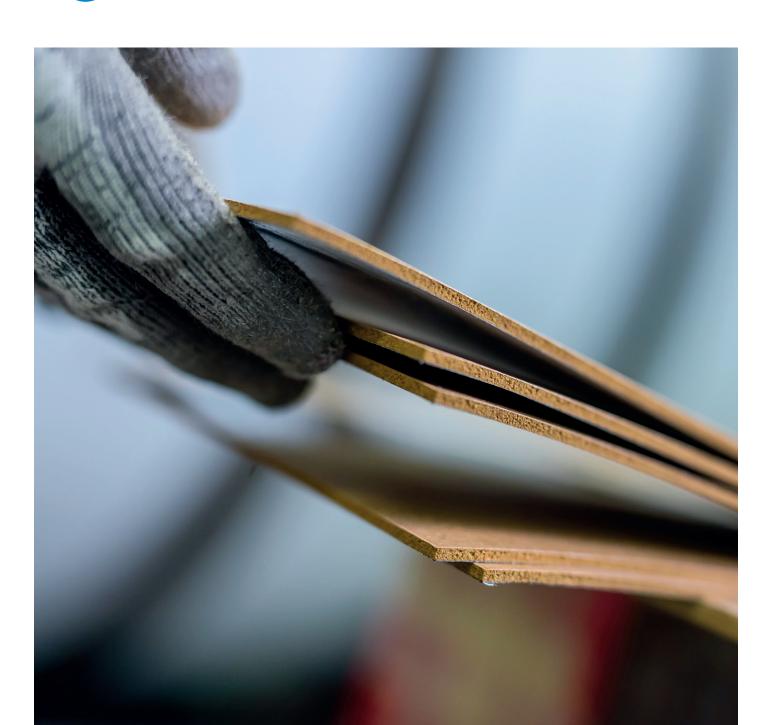
- > NORCOAT<sup>®</sup> 4011
- > NORCOAT® 4000
- > NORCOAT<sup>®</sup> LIÈGE

# THERMAL PROTECTION PRODUCT LINE

# NORCOAT<sup>®</sup> LIÈGE

- > ASTERM®
- > PROSIAL<sup>®</sup> 2000
- > NORCOAT<sup>®</sup> 5011

- > NAXECO® RESIN
- > NAXECO<sup>®</sup> PYC
- > NORCOAT<sup>®</sup> FLEX







# NORCOAT<sup>®</sup> LIÈGE Cork based Ablative thermal protection

ArianeGroup has been developing and manufacturing thermal protection for space applications for over 40 years and is recognized as an European leader. Our range of manufacturing processes allows many designs to protect the structures: bonding, moulding or spraying.

CHARACTERISTICS	
Density	0.47
Thermal Conductivity at 20°C	0.09 W·m⁻¹·K⁻¹
Specific heat at 150°C	1.8 kJ·kg <sup>-1</sup> ·K <sup>-1</sup>
Tensile stress	0.7 MPa
Elongation	6%
Dimensions	1210 mm x 680 mm
Thickness	1 to 120 mm
Heat flux	2 MW/m <sup>2</sup>

#### NOTE:

Data in this document is for information purposes only.



## 18 VERITAS

### Our product:

- > Easily Machinable: Available inplates, or pre-cut kitting (2D) or inshape (3D)
- > High thickness available
- > Fungicide included (F): No shelf life-stability over time
- > Fire proof (FI)
- > Water repellent (FIH)
- > Defense and Space qualified: Ariane 5, Mars entry, Ariane 6 ready, Military launchers
- > Can be **coated** (Antistatic paint e.g.)
- > Composite and Metallic substrates
- > 2000°C material



#### ADVANTAGES

#### **Excellent heat performances**

#### Material adaptability

- > Thin-skin is ideal for confined spaces
- > Lightweight materials

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#### Manufacturing process adaptability



- Mechanical stability: materials paired with all support types
- > Stability over time: 20-year life cycle for temperatures of between -50°C and 200°C

#### Fully adapted solutions

- > Need analysis
- Material definition and manufacturing
- > Technical product support
- Durable supply with adaptation to new standards

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#### ArianeGroup SAS

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