



# ULTRABLADE® 2

## NEXT-LEVEL BLADE PERFORMANCE

**Ultrablade® 2 leverages the power of WindStrand® 4000's higher modulus at increased Fiber Volume Fractions to improve laminate modulus in the main fiber direction. Ultrablade® 2 allows more efficient blade design and enables the making of lighter, longer blades that reduce the cost of wind energy.**

- Produced with H<sup>2</sup> Glass, the second-generation high-modulus glass specifically designed for wind blades by Owens Corning.
- Manufactured with the world's best fabric technology at state-of-the-art Owens Corning facilities.
- Compatible with epoxy, polyester, and vinyl ester resin systems. Contact us with questions regarding compatibility with other resin systems.

### FOR HIGH-PERFORMING, LONGER WIND BLADES

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#### Product Benefits

##### Superior Laminate Performance

- 51GPa laminate modulus – true performance proven by ISO 527 testing method.

##### Excellent Processability

- Fast wet-out, good processing and handling characteristics.
- Operation at increased Fiber Volume Fraction (FVF) levels.

##### Reliable Supply

- Owens Corning® H<sup>2</sup> Glass is continuously produced at scale and increasing capacity, delivering reliable product supply and consistency.

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#### Applications

Ultrablade® 2 is a higher-performance fabric that enables blade designers to minimize the weight and maximize the length & strength of wind blades:

- Spar caps
- Shell
- Root
- Shear web
- Trailing edge



| Properties | Characteristic       | Test Method | Modulus @ 55% FVF (GPa) | Strength Char (MPa) | Elongation (%) |
|------------|----------------------|-------------|-------------------------|---------------------|----------------|
|            | Tensile 0°           | ISO527-5A   | 51                      | 1,250               | 2.5            |
|            | Compression 0°       | ISO 14126   | 51                      | 850                 | 1.5            |
|            | V-Notch Shear        | ASTM-D7078  | 4.2                     | 60                  | -              |
|            | Inter Fiber Fracture | ISO 527-5B  | 14                      | 54                  | -              |

#### FRACTURE

| FATIGUE | TEST METHOD | SLOPE VALUE (M) |
|---------|-------------|-----------------|
| R=0.1   | ISO 13003   | 10-11           |
| R=-1    | ISO 13003   | 12-15           |

Average values from fabric laminate tests.

|                                   |  |
|-----------------------------------|--|
| <b>Availability and Packaging</b> | This product is available globally in unidirectional and multiaxial constructions. Packaging information available upon request. |
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|----------------|--|
| <b>Storage</b> | Glass fiber products should be stored in a dry area and remain in their original packaging until use. Product should be protected from the weather and other sources of water. |
|                | It is recommended that the product be used for manufacturing in resin within 36 months.  |



**HOW WE  
POWER NOW**

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