

### PRODUCT INFORMATION

## Woven Roving Fabrics (0°/90°).

#### PRODUCT DESCRIPTION

OCV<sup>TM</sup> Technical Fabrics Woven Roving Fabrics are composed of direct rovings woven into a fabric or tape. The input rovings are designed to give controlled wet-out and excellent laminate properties. The construction gives bi-directional (0°/90°) reinforcement and the strength of continuous filaments. Woven Roving Fabrics are designed to be compatible with multiple resin systems, and can be customized to meet specific product requirements.

#### PRODUCT APPLICATION

OCV™ Woven Roving Fabrics provide high-quality, global products designed to meet your performance and cost requirements. Woven Roving Fabrics provide the most economical solution for raising glass content of laminates and increasing laminate stiffness and impact resistance without adding thickness, weight, or other non-reinforcing materials. The fabric delivers cost-effective solutions to your competitive reinforcement challenges, particularly large parts such as boat hulls and high-durability laminates such as underground storage vessels.

#### **FEATURES**

#### PRODUCT BENEFITS

| Economical, multi-use fabric                           | Lower finished part cost                                       |
|--|--|
| Consistent glass loading                               | Excellent laminate properties and cost-effective reinforcement |
| Excellent dimensional stability                        | Ease of handling and drape ability                             |
| Regular porosity                                       | Rapid wet-out and fast application                             |
| Assorted weave patterns and preferential fiber loading | Design flexibility and engineered strain values                |
| Crimp engineered for end-use                           | High impact response   |

# PRODUCT NOMENCLATURE WR 600 /125 Woven Roving Fabric weight (g/m²) Roll width (cm)

#### PHYSICAL PROPERTIES / AVAILABLE PRODUCTS

| FAMILY                  | PRODUCT DESCRIPTION | PRODUCT<br>CERTIFICATE<br>Lloyd's approval | TOTAL<br>WEIGHT<br>(g/m²) | WEIGHT UNIFORMITY (g/m²) |      |     |         |           |           | STANDARD WIDTH |
|-------------------------|---------------------|--|---------------------------|--------------------------|------|-----|---------|-----------|-----------|----------------|
|                         |                     |  |                           | Yarn Roving              |      |     | PATTERN | RATIO %   | (mm)      |                |
|                         |                     |  |                           | 0°                       | +45° | 90° | -45°    |           | warp/weft |                |
| Woven                   | WR 300              | ×  | 300                       | 150                      | -    | 150 | -       | Plain     | 50/50     | 1250           |
| Roving                  | WR 500              | X  | 500                       | 250                      | -    | 250 | -       | Plain     | 50/50     | 1250           |
|                         | WR 580 1/3          | X  | 580                       | 290                      | -    | 290 | -       | 1/3 Twill | 50/50     | 1250           |
|                         | WR 600              | X  | 600                       | 300                      | -    | 300 | -       | Plain     | 50/50     | 1250           |
|                         | WR 800              | X  | 800                       | 400                      | -    | 400 | -       | Plain     | 50/50     | 1250           |
|                         | WR 1000 2/2         | X  | 1000                      | 500                      | -    | 500 | -       | 2/2 Twill | 50/50     | 1250           |
|                         | WR 1500 2/2         | X  | 1440                      | 720                      | -    | 720 |         | 2/2 Twill | 50/50     | 1250           |
| Unid. Warp<br>0° —<br>— | WR 482/31           | X  | 513                       | 482                      | -    | 31  | -       | Plain     | 94/6      | 150 to 1300    |
|                         | WR 567/36           | X  | 603                       | 567                      | -    | 36  | -       | Plain     | 94/6      | 150 to 1300    |
|                         | WR 724/81           | X  | 804                       | 724                      | -    | 81  | -       | Plain     | 90/10     | 150 to 1300    |
|                         | WR 1152/42          | X  | 1194                      | 1152                     | -    | 42  | -       | Plain     | 96/4      | 150 to 1300    |
| Unid. Weft<br>90°       | WR 25/25 I          | X  | 276                       | 25                       | -    | 251 | -       | Plain     | 9/91      | 150 to 1300    |
|                         | WR 22/422           | X  | 444                       | 22                       | -    | 422 | -       | Plain     | 5/95      | 150 to 1300    |

Others weights, types and combinations are available under request.

### SAMPLE MECHANICAL PROPERTIES

Sample Mechanical Properties of Laminate based on WR 600 (57% glass content by weight).

|          | TENSILE (ISO 527-4) |           | COMPRESSION | l (ISO 8515) | FLEXURAL (ISO 14.125) |           |  |
|----------|---------------------|-----------|-------------|--------------|-----------------------|-----------|--|
|          | Warp mean           | Weft mean | Warp mean   | Weft mean    | Warp mean             | Weft mean |  |
| Strength | 384 MPa             | 502 MPa   | 201 MPa     | 203 MPa      | 481 MPa               | 558 MPa   |  |
| Modulus  | 20.2 GPa            | 22.3 GPa  | 16.9 GPa    | 17.4 GPa     | 17.1 GPa              | 17.8 GPa  |  |



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