



U681 BARRFLEX™

U681 is an advanced para-aramid unidirectional material for hard armor ballistic applications. U681 consists of two plies of unidirectional product, cross-plyed in 0°/90° configuration. Our proprietary UD technology aligns the fibers in each layer in a parallel direction.

PHYSICAL PROPERTIES

Characteristic	Lower Limit	Target	Upper Limit
Width	62.99 in 160.0 cm	63.19 in 160.5 cm	63.39 in 161.0 cm
Conditioned Weight	6.49 oz/yd ² 220.0 g/m ²	6.81 oz/yd ² 231.0 g/m ²	7.14 oz/yd ² 242.0 g/m ²

FEATURES AND BENEFITS

- Very good performance against AP ammunition
- Excellent stiffness behind ceramic plates
- Retains stability and structural integrity at elevated temperatures
- Maintains ballistic performance levels at low or high pressure (autoclave or vacuum)

BALLISTIC PERFORMANCE

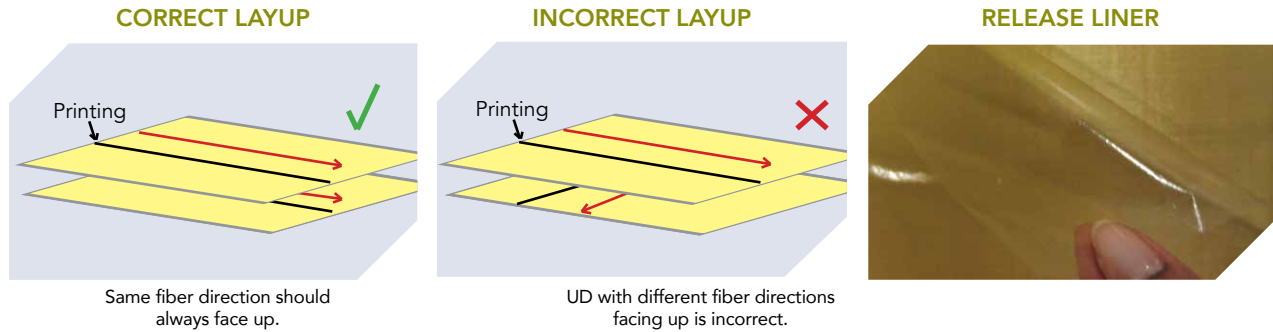
Test	Layers	Conditioned Areal Density kg/m ² *	Dry Pressed Areal Density lb/ft ² *	V50 m/s	V50 ft/s
0.30 Cal FSP	87	20.1	4.0	≥ 912	≥ 2991
	65	14.6	3.0	≥ 735	≥ 2411

V50 tested acc to MIL_STD_662F, in air

The ballistic data listed here is representative of typical results based on limited data and may be subject to revision.
* Listed values and target areal densities only.

Material performance is dependent on product orientation.
Always ensure the fiber orientation is correct.

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Material Disclaimer:

In some instances, stitching may decrease ballistic performance when used in a monolithic configuration. If required, please contact Barrday for additional information on stitching.

Aramid Disclaimer:

Prolonged sunlight and UV exposure degrades aramid fibers. Aramid fibers will change color with exposure to sunlight or other UV sources. Do not store in direct light. Do not store near open flame, heat or strong oxidants. Aramid yarn absorbs up to 8% moisture by weight. Caution should be taken if aramid fibers are used at temperature above 149°C for extended periods of time.

Note:

The data presented herein has been developed under controlled manufacturing conditions. No warranty is expressed or implied regarding the accuracy or use of this data or the use of this product. It is the responsibility of the end user to determine suitability for use.