



UA200 BARRFLEX™

BarrFlex™ UA200 is an advanced para-aramid unidirectional material for soft armor multi-threat applications. BarrFlex™ UA200 consists of two plies of unidirectional product, cross-plied in 0°/90° configuration. Our proprietary UD technology aligns the fibers in each layer in a parallel direction. Each layer is individually constructed within a resin matrix.

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	3.13 oz/yd ² 106.0g/m ²	3.30 oz/yd ² 112.0 g/m ²	3.48 oz/yd ² 118.0 g/m ²

FEATURES AND BENEFITS

- Two-ply UD configuration provides improved flexibility for more comfortable armor solutions.
- Optimized ballistic and stab performance for both NIJ 0101.06/07 and NIJ 0115.00
- Good performance against steel jacketed projectiles
- Product performance maintained after environmental conditioning

BALLISTIC PERFORMANCE

Threat	Layers	Conditioned Areal Density kg/m ^{2*}	Conditioned Areal Density lb/ft ^{2*}	Average V50 m/s	Average V50 ft/s
9mm FMJ 124gr	40	4.48	0.92	450	1476
.357 Magnum 158gr	40	4.48	0.92	450	1476
.44 Magnum 240gr	52	5.82	1.19	460	1509

STAB PERFORMANCE - STARTING POINT OF DESIGN (NIJ 0115.00)

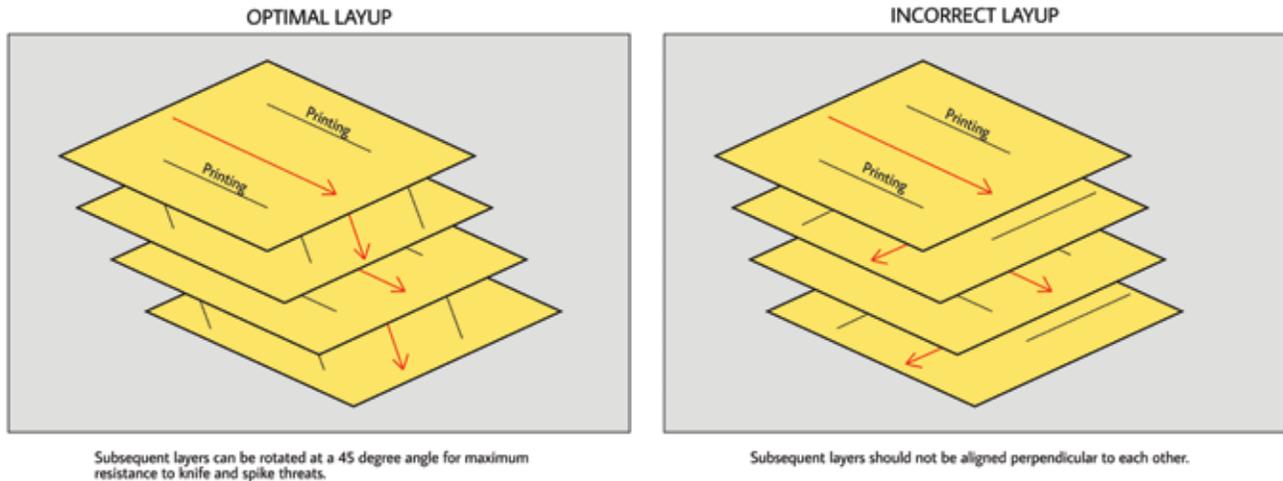
Threat	Layers	Conditioned Areal Density kg/m ^{2*}	Conditioned Areal Density lb/ft ^{2*}
P1/A @ 36J	50 (0/45/0/45) + 3mm Foam	5.8	1.19
Spike 36J	50 (0/45/0/45) + 3mm Foam	5.8	1.19

The ballistic data listed here is representative of typical results and may be subject to revision. Performance may also vary between different test laboratories.

*Listed values and target areal densities only.

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

UA220 BARRFLEXTM



BarrFlexTM UA220 has been tested in accordance with NIJ06 tumbling protocol. Additional accelerated aging tests were conducted on BarrFlexTM UA220 using NIJ06 recommended conditions for the duration of twelve months. Please contact Barrday for additional information on both accelerated aging studies. This information does not relieve the user from the responsibility of testing the final ballistic construction.

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.