

## UP750

UP750 is a high performance, ultra-high molecular weight polyethylene unidirectional material for soft armor ballistic applications. UP750 consists of four plies of unidirectional product, cross-plyed in 0°/90°/0°/90° configuration and film. Each layer is individually constructed within a resin matrix using Barrday's proprietary UD technology to align the fibers in a parallel direction.

### PHYSICAL PROPERTIES

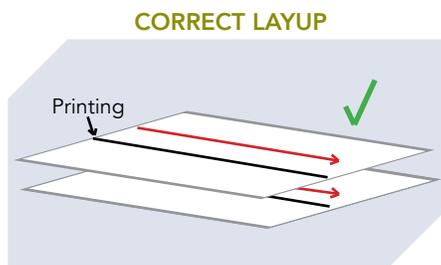
Characteristic	Lower Limit	Target	Upper Limit
Width	62.99 in 160.0 cm	63.19 in 160.5 cm	63.39 in 161.0 cm
Nominal Weight	5.45 oz/yd <sup>2</sup> 185 g/m <sup>2</sup>	5.83 oz/yd <sup>2</sup> 198 g/m <sup>2</sup>	6.23 oz/yd <sup>2</sup> 211 g/m <sup>2</sup>

### BALLISTIC PERFORMANCE

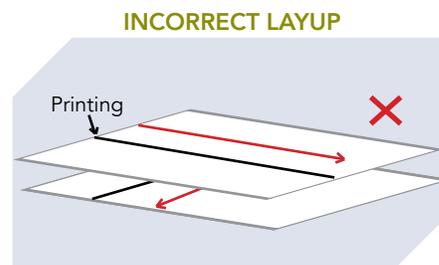
Threat	Layers	Conditioned Areal Density kg/m <sup>2</sup> *	Conditioned Areal Density lb/ft <sup>2</sup> *	Average V50 m/s	Average V50 ft/s
DM41	18	3.56	0.73	535	1755
FSP 17 1.1g	18	3.56	0.73	545	1788

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



Same fiber direction should always face up.



UD with different fiber directions facing up is incorrect.

UP750 has been tested under various conditions including the NIJ 0101.06 Conditioning/Tumbling protocol. For more information, please contact Barrday with any questions regarding test results.

**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.

**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.