

<b>Brand name</b>	<b>LOONG-FLEX™</b>
	<b>HA Series (Hard Armor – UHMWPE UD)</b>
<b>Product code:</b>	<b>SJ100-240H</b>
<b>Armor type :</b>	<b>Hard Ballistic Plate</b>
<b>Construction:</b>	<b>UD Cross-Ply Laminate</b>
<b>Application :</b>	Hard Armor Plates (Standalone/Backer) / Vehicle Armor/ Ballistic Shields


**PHYSICAL & DIMENSIONAL PROPERTIES**

Construction	4-Ply Cross-Ply (0°/90°/0°/90°)
Areal Density (with film)	240 g/m <sup>2</sup> ± 5 g/m <sup>2</sup>
Fabric Width	1600 mm
Roll Length	50 m (standard) / Customizable
Fiber Type	UHMWPE —SJ100 Grade
Fiber Tenacity	32 – 35 cN/dtex
Matrix / Binder	Thermoplastic Resin
Product Form	Roll

**BALLISTIC PERFORMANCE DATA**

Threat Level	Configuration	Areal Weight
NIJ 0101.06-III A 9mm FMJ RN	24 Plies	5.80 kg/m <sup>2</sup>
NIJ 0101.06-III A .44 Magnum SJHP	24 Plies	5.80 kg/m <sup>2</sup>
AK / MSC M80 — UHMWPE only	70 Plies	17.0 kg/m <sup>2</sup>
NIJ Level IV — Ceramic + UHMWPE	Ceramic +backer	18.5 kg/m <sup>2</sup>
<b>V50 Ballistic Limit (1.1g / 17gr FSP):</b>	550 ± 15 m/s (at 5.4 kg/m <sup>2</sup> )	
<b>V50 Ballistic Limit (1.1g / 17gr FSP):</b>	1000 ± 15 m/s (at 12.0 kg/m <sup>2</sup> )	
Processing Method	Hot Press / Mold	
Recommended Press Temp	125 – 135 °C	
Recommended Press Pressure	8 – 15 MPa	

**PRODUCT FEATURES & ADVANTAGES**

<b>Armor Form</b>	Hard composite plate (press-cured)
<b>Key Advantage</b>	Heavy 240 gsm 4UD — fewer plies needed per plate; reduces layup time and tooling complexity for thick hard armor plates; economical solution
<b>Ceramic Compatibility</b>	Excellent — recommended as backer for NIJ IV
<b>Processing</b>	Hot press molding / Compression molding

- All values are typical and representative; they are not guaranteed specifications.
- Ballistic performance data are based on internal laboratory testing.  
End-user validation testing is strongly recommended.
- Properties may vary depending on processing conditions and laminate configuration.
- Export of ballistic materials may be subject to national and international regulations.