

Brand name	LOONG-FLEX™ HA Series (Hard Armor – UHMWPE UD)
Product code:	J280-110H
Armor type :	Hard Ballistic Plate
Construction:	UD Cross-Ply Laminate
Application :	Hard Armor Plates (Standalone/Backer) / Vehicle Armor/ Ballistic Shields


PHYSICAL & DIMENSIONAL PROPERTIES

Construction	2-Ply Cross-Ply (0°/90°)
Areal Density (with film)	110 g/m ² ± 5 g/m ²
Fabric Width	1600 mm
Roll Length	100 m (standard) / Customizable
Fiber Type	UHMWPE —SJ200 Grade
Fiber Tenacity	37 – 39.5 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	45 Plies	5.0 kg/m ²
NIJ 0101.06-III A .44 Magnum SJHP	45 Plies	5.0 kg/m ²
AK / MSC M80 — UHMWPE only	124 Plies	13.6 kg/m ²
NIJ Level IV — Ceramic + UHMWPE	Ceramic +backer	16.5 kg/m ²
V50 Ballistic Limit (1.1g / 17gr FSP):		640 ± 15 m/s (at 5.4 kg/m ²)
Processing Method	Hot Press / Mold	
Recommended Press Temp	125 – 135 °C	
Recommended Press Pressure	8 – 15 MPa	

PRODUCT FEATURES & ADVANTAGES

Armor Form	Hard composite plate (press-cured)
Key Advantage	J280 high-tenacity fiber in 110 gsm 2UD format; excellent fragment V50 (640 m/s) at 5.4 kg/m ² ; weight-efficient hard armor with fewer plies vs lower-grade equivalents
Ceramic Compatibility	Excellent backer for ceramic armor systems
Processing	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.