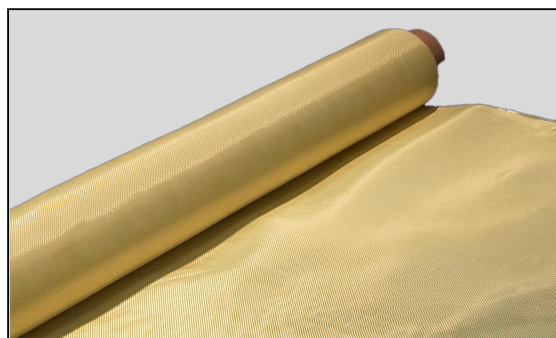


Brand name	LOONG-FLEX™ SW (Hard Armor / Helmet – Woven Fabric Series)
Product code:	SW-410T
Armor type :	Hard Armor / Ballistic Helmet / Rigid Composite
Construction:	Basket Weave, Single Layer
Application :	Ballistic Helmet Shell / Hard Armor Panel
Manufacturing note:	superior composite V50 and structural performance


PHYSICAL & DIMENSIONAL PROPERTIES

Property	Unit	Value
Areal Density	g/m ²	410
Fabric Width	mm	1600
Roll Length	m	100
Fabric Thickness	mm	0.65± 0.05
Warp Yarn Density	yarns/10 cm	121 ± 2
Weft Yarn Density	yarns/10 cm	121 ± 2

PHYSICAL & DIMENSIONAL PROPERTIES

Property	Method	Unit	Specification	Typical
Tensile Strength – Warp	ASTM D5035	N/50 mm	≥ 14,500	16,218
Tensile Strength – Weft	ASTM D5035	N/50 mm	≥ 15,000	18,113
Breaking Elongation – Warp	ASTM D5035	%	≤8.50	7.41
Breaking Elongation – Weft	ASTM D5035	%	≤8.50	5.40
CV of Breaking Strength – Warp	ASTM D5035	%	≤ 7.00	3.94
CV of Breaking Strength –Weft	ASTM D5035	%	≤ 7.00	2.87
Oil Content	ASTM D2257	%	0.8 – 1.5	1.21

BALLISTIC PERFORMANCE DATA

V50 Ballistic Limit (1.1g / 17gr FSP):	
Raw fabric:	495 m/s at 12 layers
Phenolic resin plate:	472 m/s at 5 kg/m ² (11 layers)
PRIMARY APPLICATION:	Ballistic Helmet Shell / Hard Armor Panel / Armored Vehicle
Final composite performance is resin-system and process dependent. End-user system validation required	

- 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.