



MATERIAL

Swebor Armor™ 560 is a low alloyed ballistic protection steel. Low carbon and manganese content paired with its carefully controlled heating, rolling, cooling and heat treatment sequences give Swebor Armor™ 560 its good combination of hardness, $R_{p_{0,2}}$ / R_m ratio, elongation, weldability, bending and ballistic protection ability.

APPLICATION

Swebor Armor™ 560 can be used in most protection applications i.e. civil armored vehicles (limousines, SUVs or trucks), CIT-vehicles, police cars, security doors and walls, bank counters, shot catches, etc. Swebor Armor™ 560 has excellent ballistic protection properties in combination with high hardness and strength but still remains easy to handle in the workshop.

CHEMICAL COMPOSITION (in wt.%)

MAX	C	Si	Mn	P	S	S + P	Other
	0,36	0,60	1,60	0,020	0,010	0,025	Cr & B

DELIVERY CONDITION

Quenched

HARDNESS

The hardness is measured according to DIN EN ISO 6506-1. The measurement takes place 1 mm underneath the plate surface. Swebor Armor™ 560 reaches hardness values between 477 and 535 HB.

MECHANICAL PROPERTIES (TYPICAL VALUES)

YEILD STRENGTH $R_{p_{0,2}}$ (N/mm ²)	TENSILE STRENGTH R_m (N/mm ²)	ELONGATION A_5 (%)	IMPACT STRENGTH K_v -40 °C (J)
1250	1690	9,5	25

GENERAL WORKING INFOS

Due to its chemical composition Swebor Armor™ 560 has good welding characteristics. Furthermore it reaches good properties for cold bending, sawing, mechanical cutting as well as milling. In order not to lose its typical characteristics, especially its hardness, Swebor Armor™ 560 must not be heated above 200°C.

CONSULTANCY

In order that Swebor Armor™ 560 withstands the different customer specific challenges, a careful production and operational planning is required. In this respect it is highly recommended to ask for professional advice which can be obtained by our expert staff or by third-party specialists of our cooperating partners.

DIMENSION RANGE

THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	NORMAL STOCK DIMENSION (mm)
2,00 - 2,49	1000 - 1150*	1500 - 7000	1000 x 3000
2,50 - 2,99	1000 - 1300*	1500 - 4000	1000 x 3000
3,00 - 6,50	1000 - 1550	1500 - 8000	1500 x 3000
7,00 - 16,00	1000 - 1550	1500 - 6100	1500 x 3000

*1500mm width might be possible. Discussion required

WIDTH TOLERANCE

0 + 20 mm

FLATNESS

Guaranteed maximum deviation of flatness is 6,0 mm/m

BALLISTIC RECOMMENDATIONS SWEBOR ARMOR™ 560

WEAPON (Type)	FIRING DISTANCE (m)	IMPACT VELOCITY (m/s)	ARMOR THICKNESS (mm)	PROTECTION LEVEL (Class)
Handgun 9 mm Para. / FJ/ RN/SC	5	415 ± 10	2,0	EN 1522 FB2 VPAM PM 3
Handgun .357 Mag. / FJ/CB/SC	5	430 ± 10	2,5	EN 1522 FB3 NIJ Level II
Handgun .44 Mag. / FJ/FN/SC	5	440 ± 10	3,0	EN 1522 FB4 NIJ Level IIIA VPAM PM 4
Assault Rifle 7.62 mm x 39 (Kal.) FJ/PB/FeC3	5	720 ± 10	4,0	VPAM PM 6
Assault Rifle 7.62 mm x 51 (NATO ball) / FJ/PB/SC	10	830 ± 10	5,5	EN 1063 BR6 NIJ Level III
Assault Rifle 5.56 mm x 45 (SS 109) / FJ/PB/SCP1	10	950 ± 10	5,5	EN 1522 FB6 (Plus 7.62x51 BR6) / VPAM PM 7
7.62 x 51 Ball FMJ	10	853 ± 15 (up to 880)	8,0	Mexican Level D
Assault Rifle 5.56 mm x 45 (M193 / SS92) / FJ/PB/HCl	10	990 ± 10	9,5	SS92 / M 193
Assault Rifle 7.62 mm x 39 API BZ / FMJ/PB/HCl	10-30	740 ± 10	13	VPAM PM 8
Assault Rifle 7.62x 51.308WIN / FMJ/PB/HCl	10	820±10	14,5	EN 1522 FB 7 VPAM PM 9