

# **POSCO Armor Plate**

# POSCO Armor Plate : MIL-A-12560

## ● Armor Plate (MIL-A-12560)

Armor plate can be used in the manufacture of military armaments, vehicles, high protected structure buildings and other varied applications.

## ● Chemical Composition

Spec.	Thickness (mm)	Heat Treatment	wt. % (max.)					
			C	Si	Mn	P	S	Cu
MIL-A-12560	8~70	QT	0.30	-	-	0.025	0.015	0.25

※ Please contact us for the detailed specification

## ● Mechanical Properties

Thickness (mm)	Surface Hardness (Brinell, HBW)	CVN (J, at -40°C, average)	Reference (thickness 15mm)			
			YS (MPa)	TS (MPa)	El (%)	Bendability
< 12.7	341~388	29	1,034	1,135	10	Pass (180°, R=4t)
12.7 ≤, < 19.05	331~375	34				
19.05 ≤, < 31.75	321~375	38				
31.75 ≤, < 50.8	293~331	53				
50.8 ≤	269~311	70				

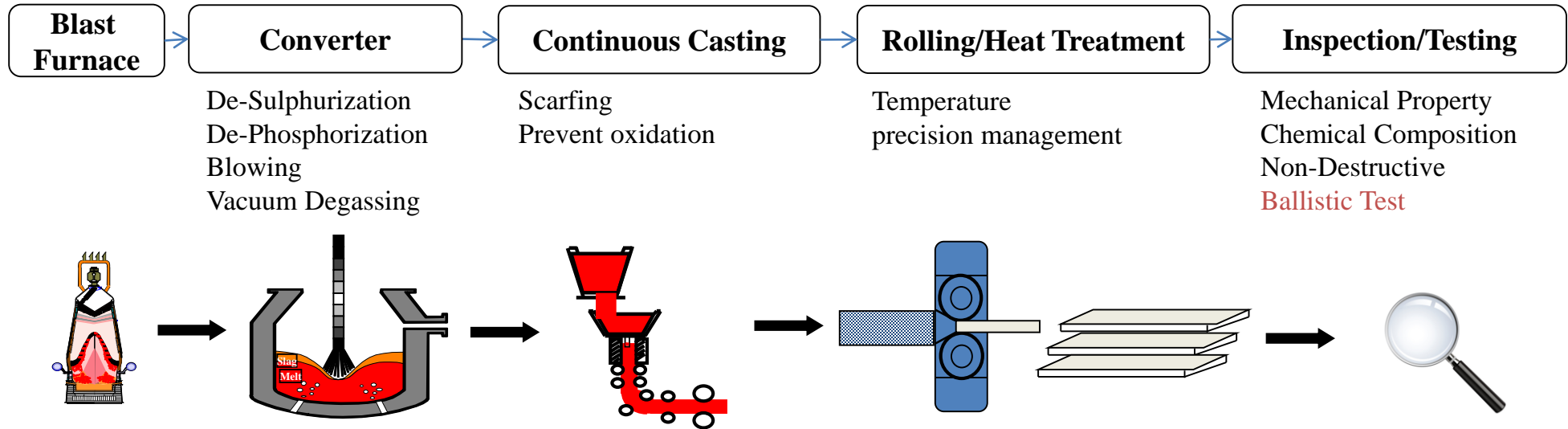
Mechanical Testing

Brinell hardness test according to KS B 0805 on each thickness of same Lot.

Charpy V notch impact test according to KS B 0810 on each thickness of same Lot.

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## Plate Manufacturing Process



## Dimensions

Spec.	Thickness (mm)	Width (mm)	Length (mm)	Max. Unit Weight (M.Ton)
MIL-A-12560	8.0 ~ 70.0	1,500 ~ 3,400	6,000~15,000	13.0

- ※ Please contact us for details before ordering supplementary requirement
- ※ In case of thickness range, 6.35~7.99mm, Further Discussion Required

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## ● Ballistic Test (USATECOM TOP 2-2-710)

The ballistic test is optional test and according to USATECOM TOP 2-2-710.

- **Class 1** : Wrought armor is intended for use in those areas where maximum resistance to penetration by armor piercing types of ammunition is required (**Ballistic Test**)
- **Class 2** : Wrought armor is intended for use in those areas where maximum resistance to failure under conditions of high rates of shock loading is required and where resistance to penetration by armor piercing ammunition is of secondary importance. It is intended for use as protection against anti-tank land mines, hand grenades, bursting shells, and other blast-producing weapons.

Spec.	Thickness (mm)	Test projectile	Size of test plate (mm)	Distance
MIL-A-12560	8.0 ~ 14.35	Cal .30 AP M2	300 X 900	15M
	14.36 ~ 28.58	Cal .50 AP M2		
	28.59 ~ 69.85	20 mm KM602		

※ The above bulletproof test is similar to NATO STANAG 4569 Level 3.



Middle-diameter launcher  
(Ballistic test specialized company)

The ballistic test is carried out by an international official test institute.  
(Certificate of KOLAS)

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## ● Main Supply Records



[K9 Thunder Self-propelled Howitzer]



[K10 Ammunition Resupply Vehicle]



[K2 Main Battle Tank]



[Assault Breacher Vehicle]

# POSCO Armor Plate : MIL-HY80, HY100, PFS700

Specification	HY-80	HY-100	PFS700
Heat Treatment	Q&T	Q&T	Q&T
thickness(mm)	8~100	16~40	8~50
Yield Strength(MPa)	552~690 , <19mm 552~686 , 19mm≤	690~827	689~896 , ≤19mm 689~865 , 19mm<
Elongation	19~ , <19mm 20~ , 19mm≤	17~ , <19mm 18~ , 19mm≤	17~ , ≤19mm 18~ , 19mm<
RA	50~ , 19mm≤	45~ , 19mm≤	45~ , 19mm<
Impact test	Average 47J≤ at -84 °C	Average 41J≤ at -84 °C	Average 43J≤ at -85 °C <8.5mm Average 64J≤ at -85 °C <11.5mm Average 85J≤ at -85 °C 11.5mm≤

Chemical Composition%	HY-80	HY-100	PFS700
Carbon (Max.)	0.18	0.2	0.06
Manganese (Max.)	0.4	0.4	0.7
Phosphorus (Max.)	0.015	0.015	0.015
Sulphur (Max.)	0.008	0.008	0.006
Silicon (Max.)	0.38	0.38	0.4
Chromium (Max.)	1.8 , ≤ 76mm 1.9 , 76mm<	1.8 , ≤ 76mm 1.9 , 76mm<	0.8
Nickel (Max.)	3.5	3.5	3.7
Molybdenum (Max.)	0.6 , ≤ 76mm 0.65 , 76mm<	0.6 , ≤ 76mm 0.65 , 76mm<	0.65
Copper (Max.)	0.25	0.25	1.65