



Plastic
Mould

TGP 50
DIN 1.2083



Smelting method : EAF+LF+VD+ESR

Main characteristics : Favorable corrosion resistance, abrasion resistance, quenching, cutting performance, and polishability as well as high surface fineness.

Major applications : • Production of PVC molds; • Long-life molds; • Molds for disposable tableware; • Production of optics parts, for example, cameras, sunglasses lens, medical vessels, etc.

Chemical constituent (%):

C	Si	Mn	Cr	Mo	W	V	P	S
0.42	≤1.00	≤1.00	13.5	--	--	--	≤0.03	≤0.005

Physical Property :

Room temperature density (Kg/m ³)	Specific heat of room temperature (J/Kg.K)	200°C thermal conductivity (W/m.K)	Elastic modulus (N/mm ²)	Linear expansivity (x10 ⁻⁶ /K)	
				20 ~ 200°C	20 ~ 400°C
7.8	460	24	220,000	10.9	11.6

Purity : Electric furnace steel:

Class A		Class B		Class C		Class D	
Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse
1.5	1.0	2.0	1.5	1.5	1.0	1.5	1.5

Electroslag steel:

Class A		Class B		Class C		Class D	
Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse
1.0	0.5	1.5	1.0	1.0	1.0	1.5	1.0

Delivery state : (1) Delivery under annealing state, deliver hardness ≤235HB;

Supply specification

Round Steel	Flat Steel	Module
Φ 16-500mm	16~120mmx200~810mm	120~500mmx300~1,200mm

Thermal treatment

Softening annealing	Quenching	Tempering
Heating to 850°C for heat insulation; cooling to 650°C at 10°C/h air cooling	1,020~1,030°C quenching rapid air cooling	Tempering temperature 250°C (favorable tenacity and corrosion resistance) : selecting tempering temperature as per hardness requirements; tempering for twice.

