TGS136
(DIN 1.2316)

Smelting method : EAF+LF+VD+ESR

Main characteristics : Extremely high mirroring performance, favorable corrosion resistance, high abrasion resistance and favorable machining performance.

Major applications : ● Super-mirror plastic molds: molds for optical Lens and other transparent plastic pieces; ● Corrosion preventive high-resisting molds: Molds for fold vessels, cosmetics vessels, medical devices, light guiding plates, bottle covers, etc. ● Formed resin materials: PC, PVC, PP, PE, PF, PMMA, adding fire retardant resin, etc.

Chemical constituent (%):

C	Si	Mn	Cr	Mo	Ni	V	P	S
0.4	1.05	0.55	13.5	0.3	0.22	0.3	≤ 0.03	≤ 0.015

Physical Property :

Room temperature density (Kg/m³)	Specific heat of room temperature (J/Kg.K)	200°C thermal conductivity (W/m·K)	Elastic mouldus (N/mm²)	Linear expansivity (x10⁻⁶K)	
				20 ~ 200°C	20 ~ 400°C
7.80	465	23	241,000	11.2	11.5

Ultrasonic flaw detection: Flaw detection standard: as per GB/T 6402-2008 Class 4 flaw detection standard or as per customer requirements.

Purity :

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 : Delivery hardness: delivery under annealing state, ≤ 255HB;

Supply specification

Round Steel	Flat Steel	Module
Φ16-500mm	16~120mmx200~610mm	120~300x300~1,000mm

Thermal treatment

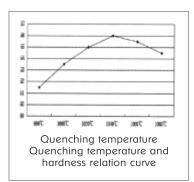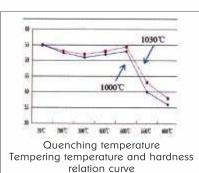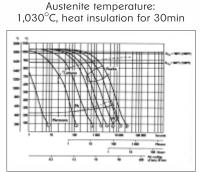| Softening annealing	Quenching	Tempering
Heating to 850°C for heat insulation; cooling to 650°C at 10°C/h air cooling	1020~1030°C quenching rapid air cooling	Tempering temperature 250°C (favorable tenacity and corrosion resistance) : selecting tempering temperature as per hardness requirements; tempering for twice.

Quenching temperature
Quenching temperature and hardness relation curve

Quenching temperature
Tempering temperature and hardness relation curve

Austenite temperature:
1,030°C, heat insulation for 30min

CCT curve