Breitenfeld Edelstahl

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TH-343 ESU

Material no. 1.2343
DIN X37CrMoV5-1

Hot wear resistance ★★½☆☆☆
Heat toughness ★★★★★☆

TH-343 ESR is a hot-work tool steel that achieves the highest steel purity and homogeneity through the ESR process and, through a combination of special heat treatment and '3D forging technology', achieves the excellent properties required to fulfil the requirements of the DGM Directive and NADCA.

Chemical composition

(Approximate values in %)

C	Si	Cr	Mo	V
0,37	1,00	5,15	1,30	0,40

Characteristics

- high heat resistance
- excellent degree of purity
- very good homogeneity
- high toughness
- extra fine structure (EFS)
- insensitive to hot cracking
- very good polishability
- water coolable

Application

- universally applicable hot-work tool stee
- die casting tools
- extrusion dies
- forging dies
- plastic moulds
- hot shear blades
- extruder screws and barrels

Delivery condition

- soft annealed max. 229 HB

Heat treatment

	Temperature	Cooling down	Hardness
Soft annealing	750 – 800 °C	Slow oven cooling	max. 229 HB
Stress-relief annealing	600 – 650 °C	Slow oven cooling	
Hardening	1000 – 1030 °C	Oil, polymer	see tempering chart

Tempering chart

Austenitising temperature: 1020 °C
Cooling medium: oil