

ES Multiform SL

Name:

Special alloy

Material No.:

C Mo Cr Ni
0,39 0,2 2,0 0,2 + trace elements

As-supplied condition:

Q – T, 280-325 HB, (950-1100 N/mm²)

Characteristics:

All-purpose tool steel, ideally suited for graining, structurally erodible with good polishing and welding properties; can be nitrated, chromium-plated, uniform hardness throughout the cross-section to a thickness of 600 mm.

General fields of application:

Injection moulds, cavity retainers for injection and die-cast moulds. It is ideally suitable for engineering applications and offers a high-quality alternative to the familiar engineering grades such as 42 CrMo 4.

Special note:

This special alloy exhibits a considerably higher thermal conductivity than the grades ES Aktuell (1.2311 EST) and ES Aktuell 1000 (1.2738 EST).

Heat treatment data:

	Temperature	Duration	Cooling
Stress-relief annealing	max. 480°C	mind. 4 h	furnace

We recommend stress-relief annealing for more than 30% machining before finish machining.

Physical characteristics:

Coefficient of thermal expansion: between 20 °C and:

10 ⁻⁶ x m	100	200	300	400	500	600	700 °C
m x K	12,3	12,9	13,3	13,7	14,2	14,5	14,6

Thermal conductivity:

	20	350	700 °C
	39,6	38,2	32,4

Normal working hardness: Used in the as-supplied condition

Continuous time-temperature-transformation diagram

Tempering curve

