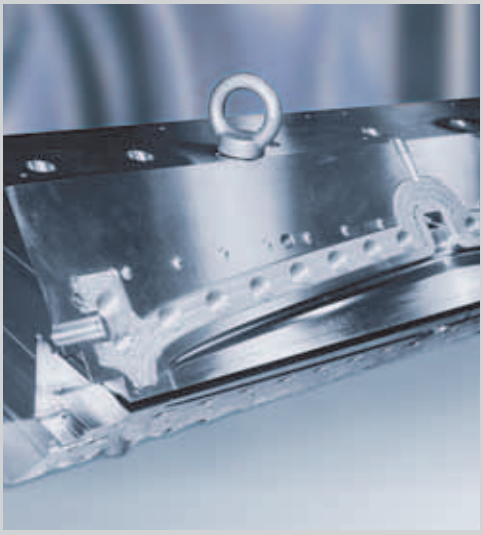
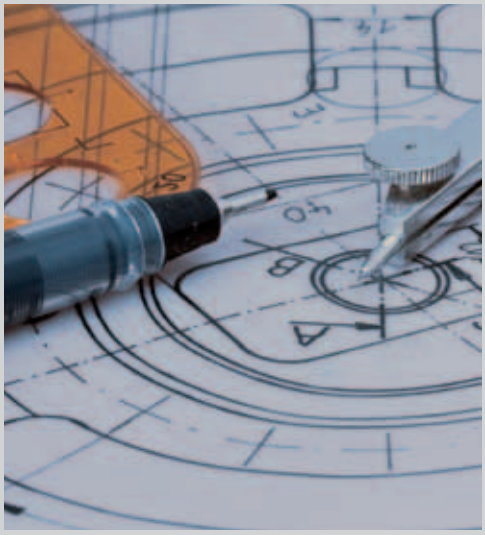
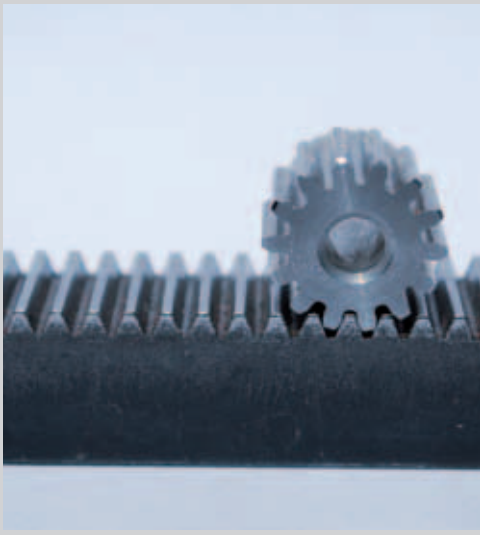
EschmannStahlGrade

ESMULTIFORM SL

Products



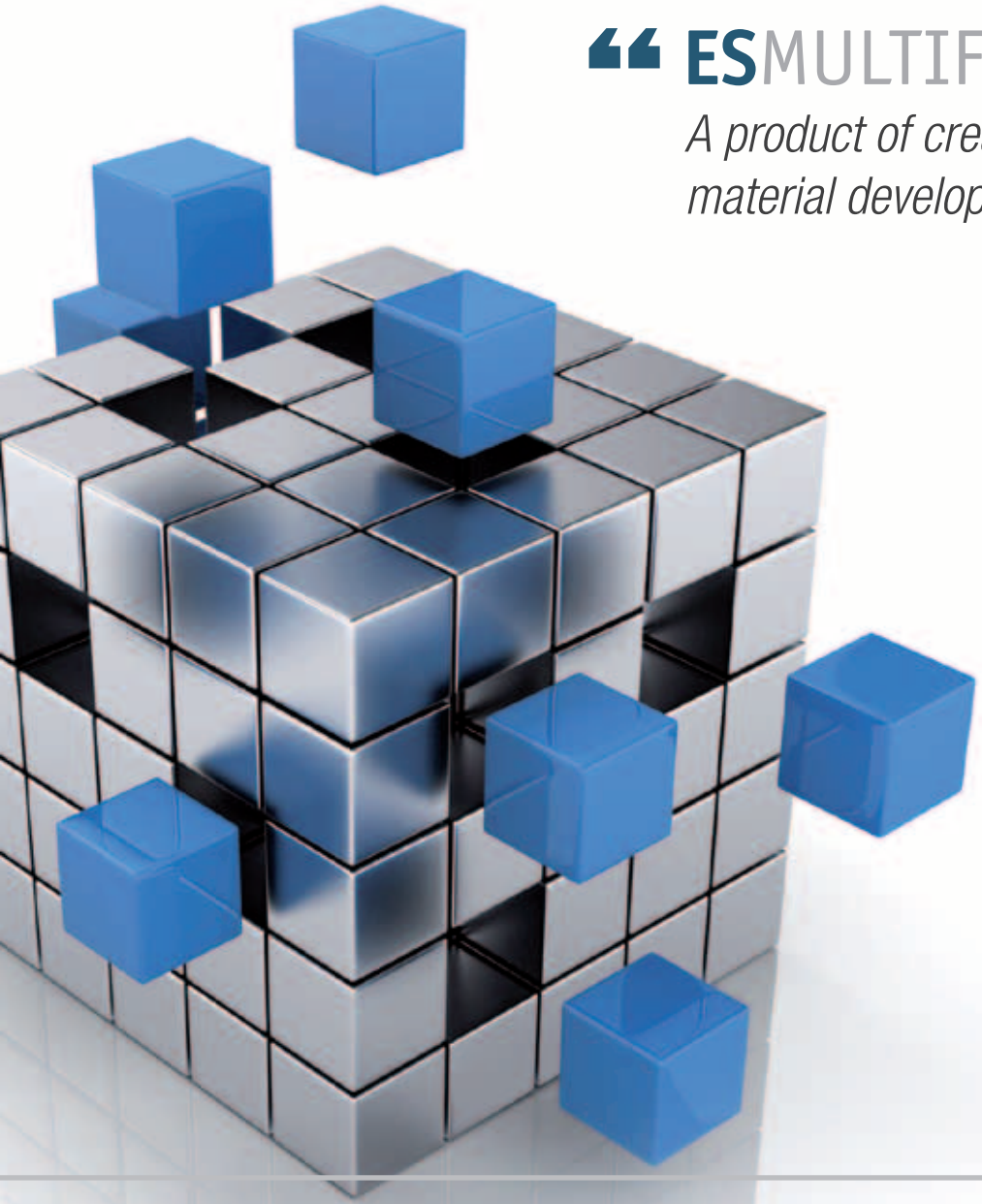





ESCHMANNSTAHL

Broad Scope for Versatile Application Areas

The positive properties of construction steel and tool steel were merged to a multi-use material. Due to its reduced percentage of nickel, the steel is unrivalled among its competitors.

- **Stable mechanical parameters**
- **Completely suitable for graining**
- **Good machinability**
- **High degree of heat conductivity**



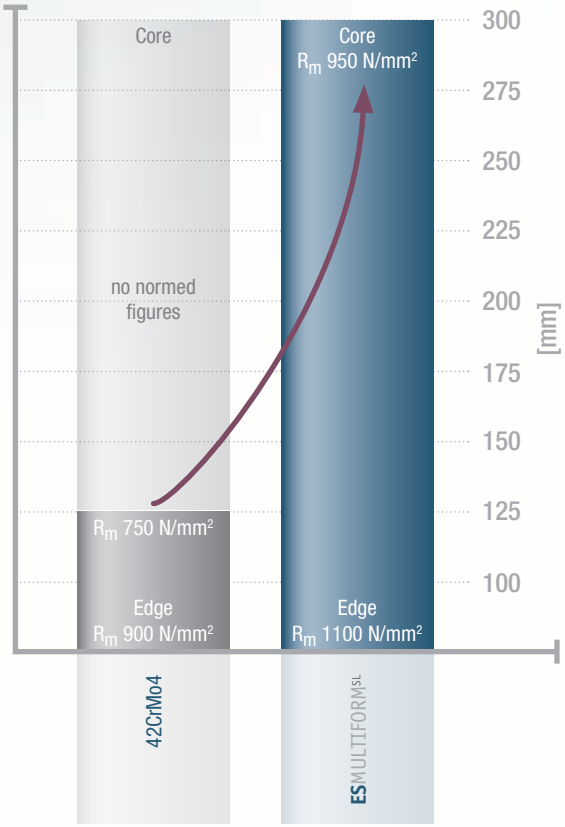
“ ESMULTIFORMSL –
A product of creative material development! ”

Facts & Figures

Material

Reference analysis in %						
Material	C	Mo	Cr	Ni	Mn	
ESMULTIFORM^{SL}	0.39	0.2	2.0	0.2	–	+ trace elements
1.2738 EST	0.4	0.25	2.0	1.0	1.5	
1.2311 EST	0.4	0.2	1.9	–	1.5	

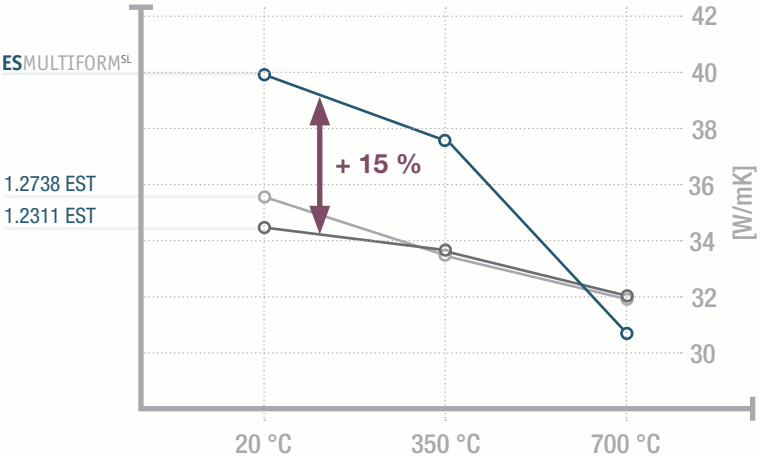
Tensile Strength



Heat Conductivity [W/mK]

Material	20 °C	350 °C	700 °C
ESMULTIFORM^{SL}	39.6	37.5	30.6
1.2738 EST	35.5	33.2	31.9
1.2311 EST	34.5	33.5	32.0

At 300 °C: 38.2 W/mK



Heat Treatment Data

Process step	Temperature	Duration	Cooling
Stress relief heat treatment	max. 480 °C	min. 4 h	furnace

Creative Material Technology Has a Name – **ES**MULTIFORM^{SL}

The unique EschmannStahlGrade offers all-round properties for a range of industries:

- **Improved full quenching and tempering properties against 42CrMo4**
- **Rolled sheets up to 150 mm strength are stress relief heat treated**
- **Polishable**
- **All surface treatment processes possible**
- **Good weldability**
- **High degree of toughness**

Tool and Mold Making

Ideal for demanding resin molds – unlimited graining suitability with high degree of heat conductivity

Mechanical Engineering

Uniform machining properties and the capacity for full quenching and tempering provide for an efficient application in mechanical engineering.

Hydraulic applications

Mold frames

Gears

Mechanical engineering components

Extrusion dies

Control units

Hydraulics

Drawing parts

Control engineering

Dies for film/sheet extrusion

Pumps

Generator sets

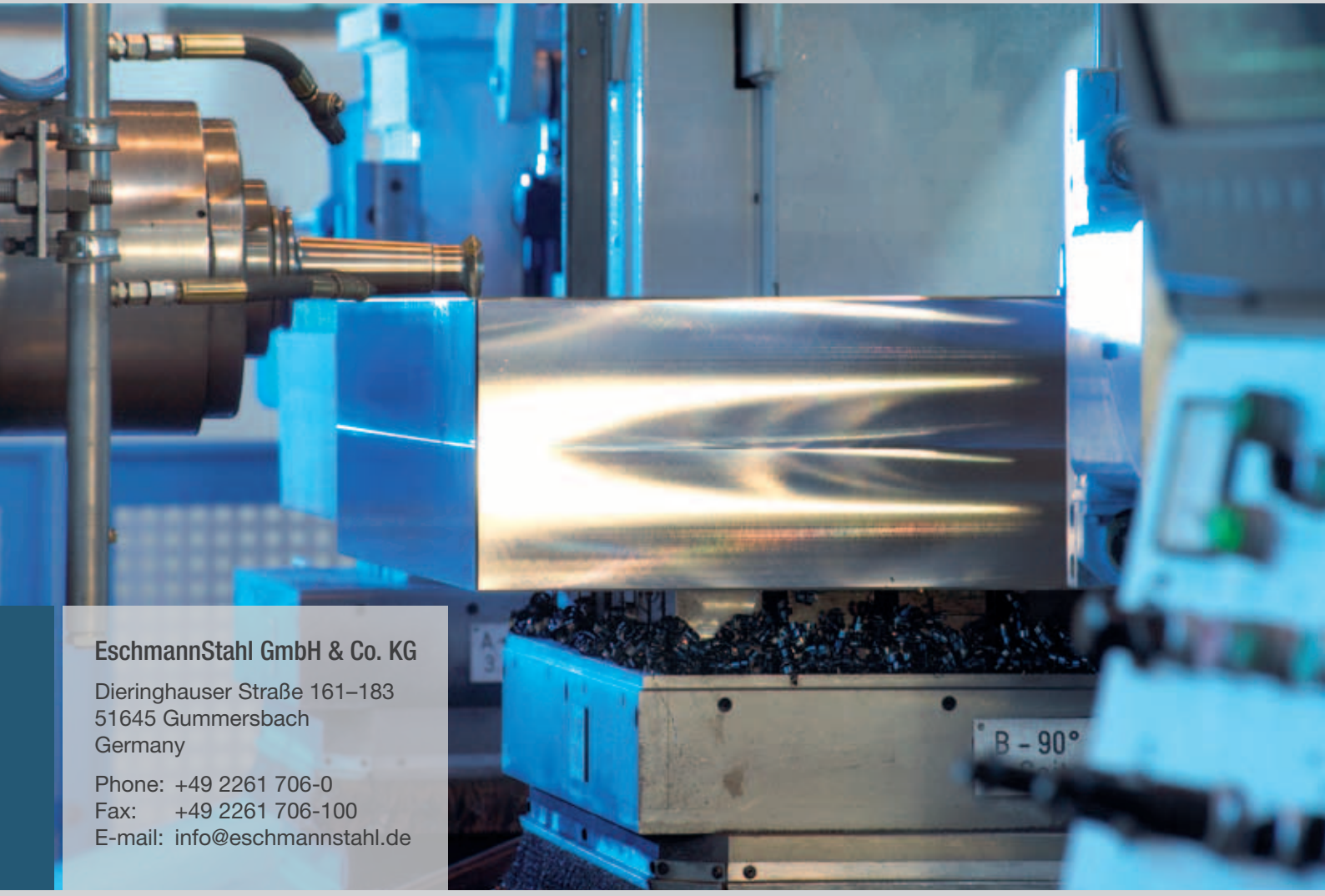
Molds

Racks

Valves

Your Benefits

- Cost-effective alternative to 1.2738 due to reduced nickel percentage
- Low distortion in machining
- High surface quality due to good polishability
- Nitriding, welding as well as laser hardening/inductive hardening and coating with all current technologies
- Good production and process safety due to high degree of toughness
- Excellent heat conductivity for more dynamic tempering
- Constant mechanical data provides for excellent calculation reliability
- Uniformly high tensile strength right up to the core
- Stable machining properties due to homogenous microstructure



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