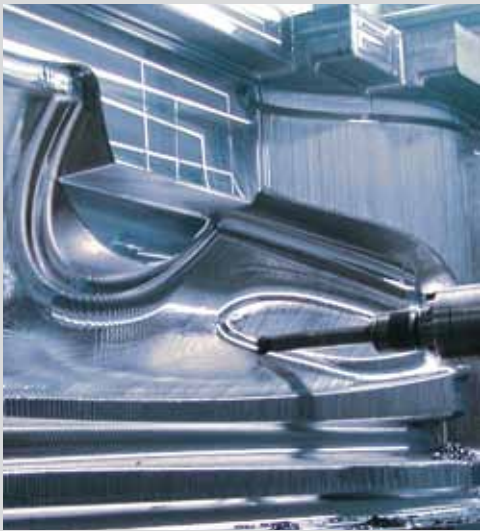


EschmannStahlGrade  
**ESMULTIFORM<sup>SL</sup>**



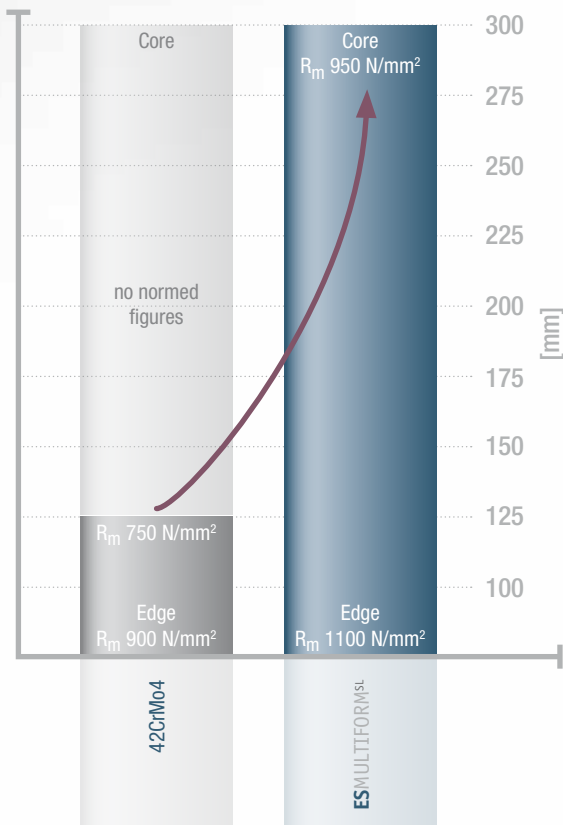
Products

# Facts & Figures

## Material

Reference analysis in %						
Material	C	Mo	Cr	Ni	Mn	
ESMULTIFORM <sup>SL</sup>	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	

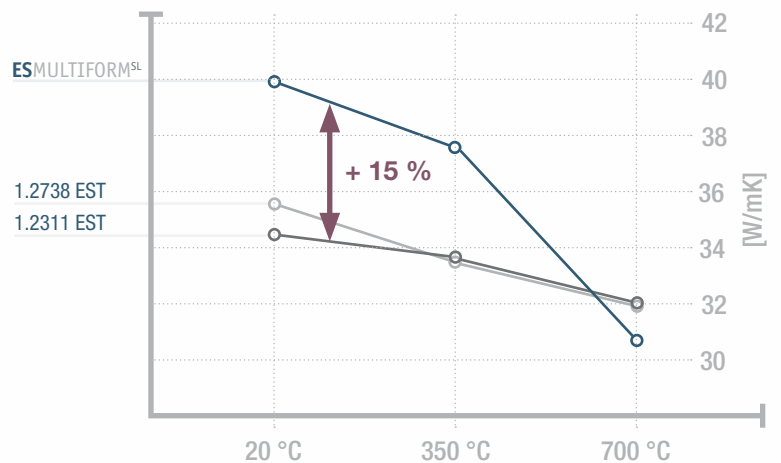
## Tensile Strength



## Heat Conductivity [W/mK]

Material	20 °C	350 °C	700 °C
ESMULTIFORM <sup>SL</sup>	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



## 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



“ ESMULTIFORM<sup>SL</sup> –  
*A product of creative  
material development!* ”

## Creative Material Technology Has a Name – **ESMULTIFORM<sup>SL</sup>**

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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