

# BGH FORGE ONE

## Typical Composition Mass-%

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,35	≤ 0,35	0,50	≤ 0,025	≤ 0,001	2,70	1,00	0,60	0,20

## Properties

BGH FORGE ONE is a Cr-Mo-V-alloyed hot working steel. It offers improved toughness and thermal conductivity compared to standard hot working steels without compromising on resistance against wear.

## Delivery Condition

- ✘ annealed (+A) max. 250 HBW
- ✘ quenched and tempered (+QT) upon request e.g. hardness 430 HBW / TS 1450 MPa

## Application Area

Highly stressed dies and plastic moulds in environments with special demands on resistance against wear.

## Typical Applications

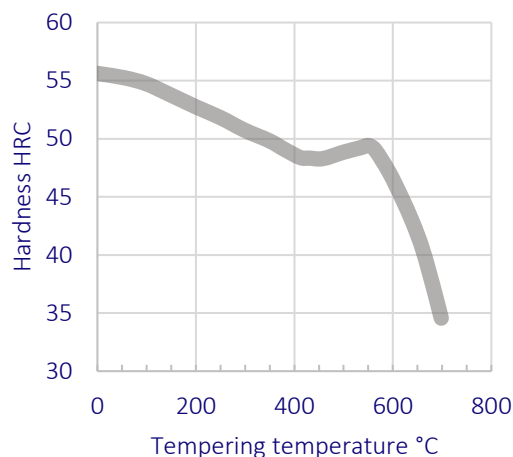
- ✘ Forging dies
- ✘ Die inserts
- ✘ Plastic moulds
- ✘ Aluminium extrusion tools
- ✘ Aluminium die casting tools
- ✘ Hammer pins

## Physical properties

Temperature [° C]	20 - 100	20 - 250	20 - 500
Thermal expansion coefficient [10 <sup>-6</sup> /K]	11,9	12,8	13,8
Thermal conductivity [W/m·K]	38,3	37,1	35,3

## Heat Treatment Guideline Values

	Temperature [°C]	Cooling medium
Annealing (+A)	750	Air (furnace)
Stress relieving (+SR)	40° C below tempering temperature	Air (furnace)
Quenching and tempering (+QT)	900 - 980 (Hardening) see graph below	oil, polymer Air



Tempering graph, hardening temp. 950 °C / oil

## Quality

- ISO 9001
- ISO 14001
- ISO 50001
- Approvals acc. to standards like ABS, BV, DNV ...
- Customer specific approval certificates

## Innovation

- Fully automated ultrasonic testing up to dia. 1000 mm
- CO<sub>2</sub>-reduction by innovative heat treatment solutions

## Flexibility

- Product range from fine wire to forging
- Directly from stock close at hand

## Individuality

- Dimensions
- Tolerances
- Surface qualities
- Delivery conditions

## Your personal contact:

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