

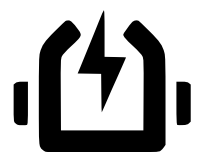
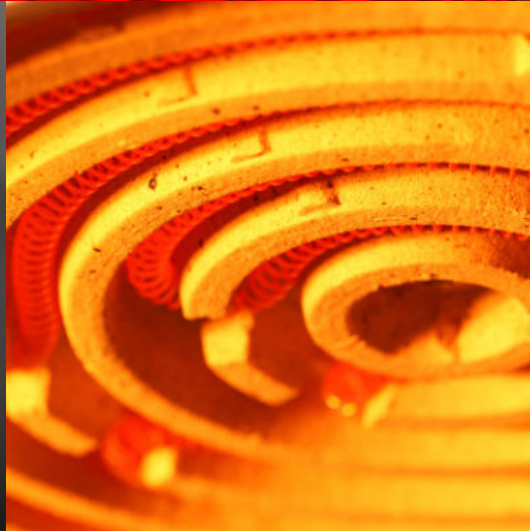
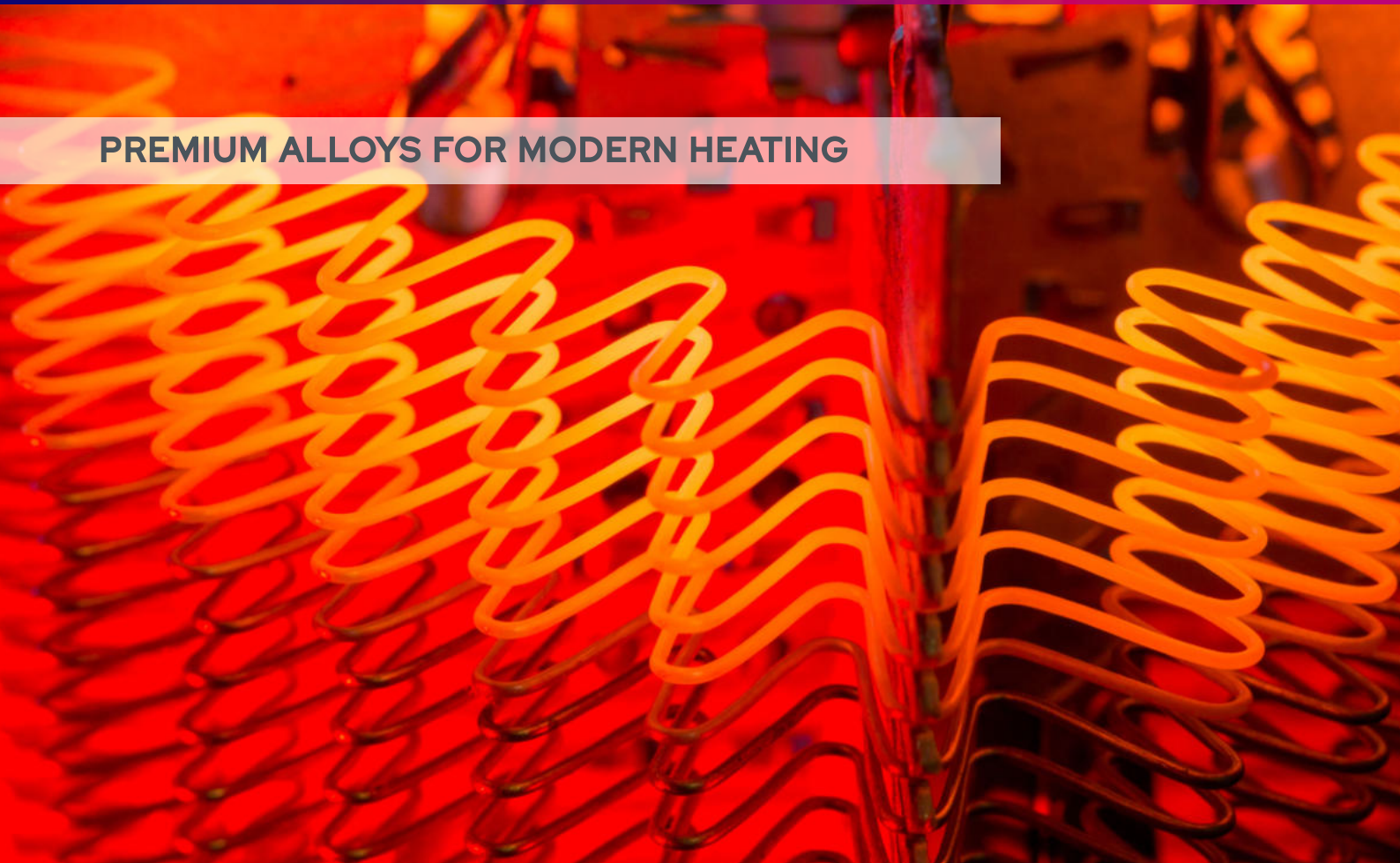


BGH

Excellence in Specialty Steel

»»» **BGH THERM RESISTANCE ALLOYS**

PREMIUM ALLOYS FOR MODERN HEATING



**MADE IN
GERMANY**

with more than 80 % recycling share

»»» **BGH THERM**

THE GERMAN BRAND FOR HEATING



FROM PERFECTED TECHNOLOGY TO HIGH QUALITY STEEL THROUGH:

- ◀ EAF/VIM melting, AOD/VOD secondary refining and ESR/VAR remelting enables the production of materials with a high degree of metallurgical purity
- ◀ Superior reliability in steel processing ensured by fully controlled production from melting to dispatch
- ◀ World class in-house heat treatment facilities
- ◀ Modern in-house laboratories
- ◀ Application-driven R&D to benefit our customers
- ◀ Certified to international standards ISO 9001, ISO 14001 and ISO 50001



YOUR ADVANTAGE:

- ◀ Many years of experience in manufacturing & testing
- ◀ Individuality and customer focus
- ◀ Reliability and certified quality
- ◀ Durability and dimensional stability
- ◀ Worldwide stock availability through our steel-servicecenters

BGH FecroTHERM

FERRITIC GRADES

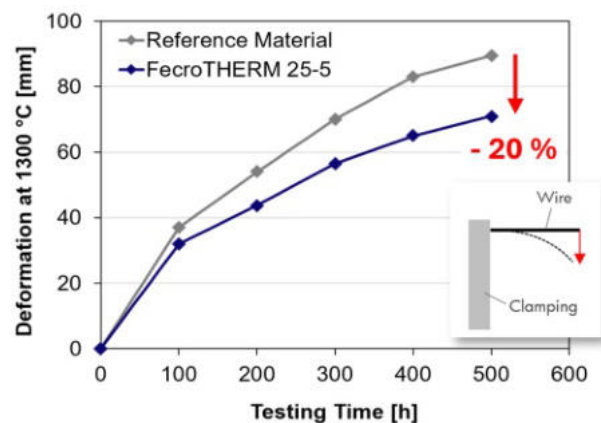
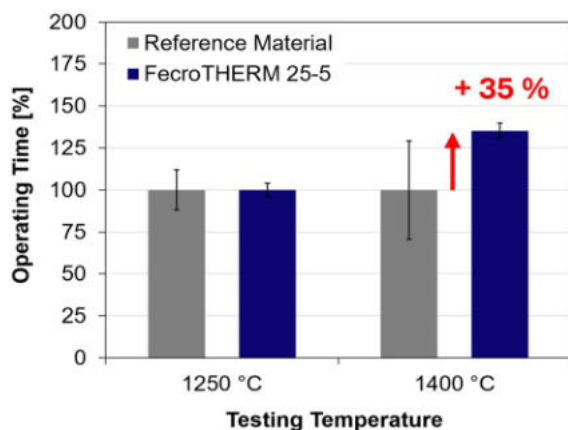


| | UNS | DIN EN | Max. operating temperature [° C] | Electrical resistivity [$\Omega\text{mm}^2/\text{m}$] |
|------------------|--------|--------|----------------------------------|---|
| FecroTHERM 25-5 | K92500 | 1.4765 | 1400 | 1.44 |
| FecroTHERM 20-5* | K92400 | 1.4767 | 1300 | 1.39 |
| FecroTHERM 14-4 | K91670 | 1.4725 | 1000 | 1.25 |

*Additions of yttrium are possible



TEST RESULTS FOR FecroTHERM 25-5:



◀ **35% increased operating time** at high temperatures compared to the reference material during cyclic resistance heating tests

◀ **20% less deformation** compared to the reference material after aging at 1300 °C for 500 h

BGH NicraTHERM

AUSTENITIC GRADES



| | UNS | DIN EN | Max. operating temperature [°C] | Electrical resistivity [$\Omega\text{mm}^2/\text{m}$] |
|------------------|--------|--------|---------------------------------|---|
| NicraTHERM 80-20 | N06003 | 2.4869 | 1200 | 1.08 |
| NicraTHERM 70-30 | N06008 | 2.4658 | 1250 | 1.16 |
| NicraTHERM 60-15 | N06004 | 2.4867 | 1100 | 1.11 |
| NicraTHERM 30-20 | - | 1.4860 | 1000 | 1.04 |

DIMENSIONS AND DELIVERY FORMS OF HEATING RESISTANCE ALLOYS



◀ Typical dimensions:

| | | [mm] | [inch] | [AWG] |
|------|--------|------------|--------------|--------|
| Wire | Ø | 0.08 - 9.0 | 0.004 - 0.35 | 39 - 0 |
| Bar | Ø | 1.0 - 20.0 | 0.04 - 0.79 | - |
| | Length | 300 - 6500 | 11.8 - 255.9 | |

◀ Delivery conditions:

| | |
|------|--|
| Wire | finally annealed finally annealed and pre-oxidized bright drawn or drawn |
| Bars | annealed and straightened bright drawn or drawn and straightened annealed, ground, and polished drawn, ground and polished |

◀ Packaging:

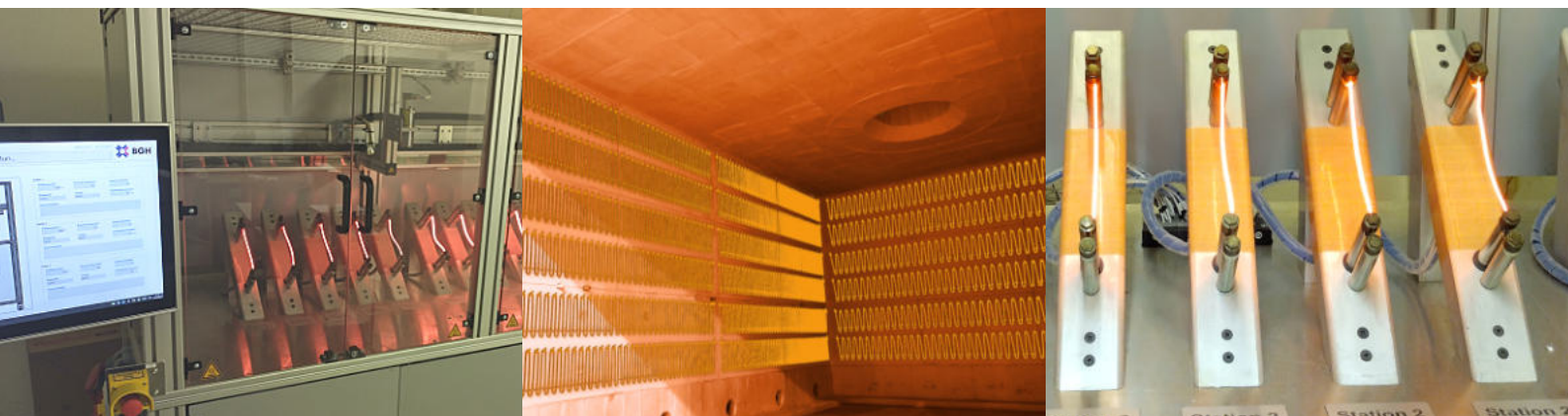
Coils, spools, drums, bars

»»» **BGH THERM**

PRECISE HEATING. MAXIMUM DURABILITY.

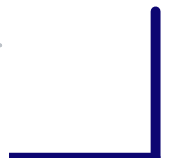
ENGINEERING CONFIDENCE WITH MODERN TESTING CAPABILITIES:

- ◀ Cyclic resistance heating tests with element temperatures up to 1400 °C on a fully automatic in-house test rig
- ◀ Isothermal aging tests
- ◀ Field tests in our own industrial heat treatment facilities



APPLICATIONS:

- ◀ Heating elements for high temperature furnaces
- ◀ Braking resistors
- ◀ Household appliances
- ◀ Burner heads and covers
- ◀ Heating cables
- ◀ Wire mesh conveyor belts



WE TAKE RESPONSIBILITY

SCIENCE-BASED EMISSION REDUCTION TARGETS

Tackling climate change requires ambitious measures from the steel sector. The BGH's emission reduction targets were validated and confirmed in 2023 by the renowned Science Based Targets Initiative (SBTi):

"We commit to reduce absolute Scope 1 and 2 greenhouse gas (GHG) emissions 42 % by 2030 from a 2021 base year. We also commit to reduce absolute Scope 3 GHG emissions 25 % within the same timeframe."



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Our science-based target proves our commitment to building a sustainable economy, by doing not what is easy but what is necessary.

In the long term, we are aiming to reduce Scope 1 and 2 emissions by 88 % by 2040 (compared to 2021) and achieve net greenhouse gas neutrality by 2045.

SUSTAINABILITY BEGINS WITH BGH STEEL

With a scrap utilisation rate of over 80%, valuable resources are conserved and long transport routes from mining areas around the world are avoided. Compared to the blast furnace route, around 70% of CO₂ emissions per tonne of crude steel are already being saved.

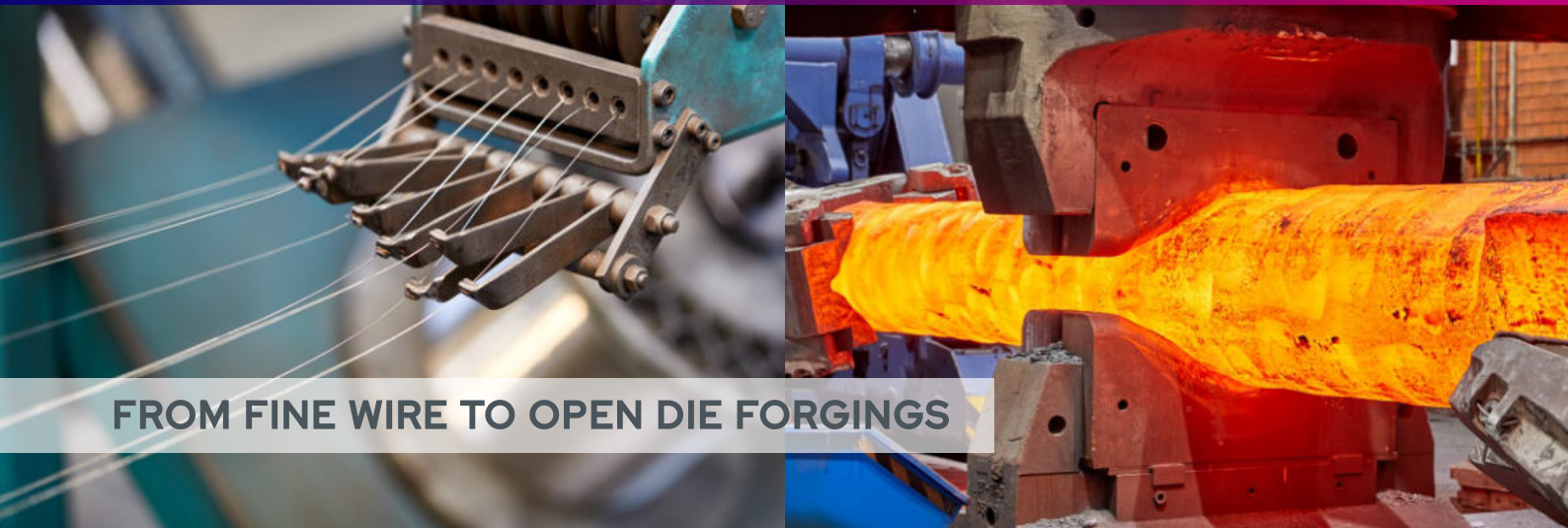


HEAT TREATMENT TECHNOLOGY HELPS TO REDUCE EMISSIONS

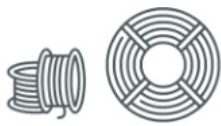
Using single-bar inductive reheating plants instead of gas-fired furnaces and combining the hot forming process with subsequent single bar quenching helps to lower CO₂ emissions and improve the quality of the bars at the same time.



OVERALL DELIVERY PROGRAM OF BGH GROUP

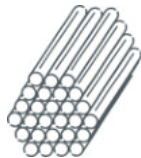


FROM FINE WIRE TO OPEN DIE FORGINGS



FINE WIRE & WIRE

Round: 0.08 mm - 22 mm



BRIGHT BAR

Round: 1 mm - 610 mm



BAR

Round: 15 mm - 950 mm

Flat (W x H): 15 - 250 mm x 5 - 89 mm (hot-rolled)

Flat (W x H): 90 - 1300 mm x 55 - 800 mm (forged)

Square: 17 mm - 800 mm



OPEN DIE FORGINGS

Longitudinal forgings:

\varnothing_{\max} 950 mm; L_{\max} 17,5 m

Weight max. 30 t

Flanged shafts: \varnothing_{\max} 1400 mm

Discs / Rings: \varnothing_{\max} 1800 mm

Tubular forgings: \varnothing_{\max} 1080 mm



SPECIAL ENGINEERING STEELS



STAINLESS STEELS



TOOL STEELS



NI-BASED ALLOYS & SPECIAL ALLOYS



CHECK STOCK AVAILABILITY





Excellence in Specialty Steel



TRADITIONAL



INNOVATIVE



FLEXIBLE



CLOSE TO THE CUSTOMER

WORLD CLASS SERVICE WITH GERMAN COMMITMENT TO QUALITY AND TECHNOLOGY

BGH (BoschGotthardsHuette) is a privately held, German-based specialty steel mill est. 1466 with six production plants in Europe. Our fully integrated production process – from melting to the final product – guarantees the highest quality specialty steel. Our products range from fine wire to forged bars as well as open-die forgings.

Customized logistic solutions are available to serve your business from several European and American stocking locations. We have a global distribution network and have been successfully operating on an international level for decades.



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