



Individual – from end to end

GMH-tailored steel with “Made in Germany” quality - the material of choice for leading producers of mining chains and demanding applications around the world.

Chain steels

Georgsmarienhütte GmbH produces high-performance steel for the manufacture of round steel chains used in lifting and conveyor technology. Chains are subjected to a wide range of stresses and loads. In addition to high static base loads, they are also exposed to significant wear. Furthermore, sudden power spikes can occur – in extreme cases accompanied by severe corrosive attack. Excellent strength and toughness values, and a high level of resistance to various forms of corrosion, are essential for durable chains. These material properties must be optimised, however, with economic aspects in mind. For that we have GMH's tried-and-tested manufacturing processes. Thanks to many years of experience designing increasingly efficient materials concepts, GMH is an expert partner for the chain industry. Our experts provide you with customised technological solutions that fully meet your demands and the in-service requirements of your chain product. Industrial field trials with innovative alloy variants are already under way. For the chain steel of tomorrow.



Steel is not just steel: We supply more than 500 different grades – and the number is growing continuously. Our customers turn to us with increasingly specialised demands. We design new materials concepts for them – tailored exactly to the specific requirements of the application, in comprehensive consultation with the customer, and individually – from end to end.

STEEL BARS

DIMENSIONS

- Rolled in accordance with DIN 10060 (tolerance deviations of no more than 1/4 from Table 1 of the standard): 20 - 126 mm rd.
- Peeled and polished in accordance with DIN EN 10277 and DIN EN 10278: 18 - 125 mm rd
- Further dimensions on request

DELIVERY LENGTHS:

- 6 - 10m
- Other lengths and short lengths by arrangement

ERROR CHECKING

- Identification testing
- Surface crack detection testing
- Ultrasonic testing
- Straightness inspection
- Length and diameter inspection

SURFACE FINISH

- Rolled
- Shot-blasted
- Peeled

TYPES OF HEAT TREATMENT

- Soft-annealed (+A)
- Normalised (+N)
- Stress-relief annealed (+SR)
- Treated for cold sawing (SAW)
- Treated to ferrite-pearlite structure and hardness range (+FP)
- Treated for cold shearing (+S)
- Spheroidised (+AC)
- Quenched and tempered (+QT) (water or air hardening)
- Treated to hardness range (+TH)

PROPERTIES

- Combination of high strength and high toughness
- Good weldability

INDUSTRY FOCUS



MINING



RENEWABLE ENERGY



SHIPBUILDING

MINING CHAIN IN ACCORDANCE WITH DIN 17115

Material No.	Steel Designation
1.6527	20NiCrMo3
1.6540	23MnNiCrMo5-3
1.6541	23MnNiCrMo5-2
1.6758	23MnNiMoCr5-4

and in accordance with the customer's specifications

Anchor Chain and Off-Shore Mooring Chain in grades 3, 4 and 5 in accordance with classification society standards

Your contact:

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