Buderus Mould Steel

Perfection has a new Name

THRUHARD SUPREME



Buderus

EDELSTAHL





Perfection for the Future

Meeting tomorrow's demands today – the guiding principle driving the development of Buderus THRUHARD SUPREME. The result is a steel ideally



suited to the needs of the mould making and plastics industry, focusing particularly on the following developments:

- The growing need for moulds with larger dimensions
- The steady increase in hardness required in pre-hardened steels
- Increasing demands in terms of quality of surface finish
- Continuing requirement for ease of machining

An impressive result: excellent product quality thanks to outstanding texturing capability and reliable mirror finish, regardless of dimensions.

The new THRUHARD SUPREME offers the following features

- Excellent product reliability even with very large tool dimensions
- Delivered hardnesses up to 38 HRC to ensure high polishability and exceptional wear resistance
- Excellent machinability even at the highest hardness values and extremely low sulfur content
- Improved weldability and increased thermal conductivity

THRUHARD SUPREME is a patented product derived from the proven plastic mould steel 2738 by Buderus Edelstahl. The steel is also identified by the abbreviation **2738mod. TS**.



Innovative and highly versatile

The new plastic mould steel THRU-HARD SUPREME is ideally suited for almost all applications in the plastics industry. It meets the demanding requirements of today's tool makers, and moulders.



Powerful arguments for mould makers

- One single pre-hardened plastic mould steel covers a wide range of applications
- Available in regular grade 31 HRC and in HighHard grade 36 HRC
- Good machinability with high hardness and extremely high purity
- Weldability is significantly improved
- Intermediate stress relief not required under normal conditions

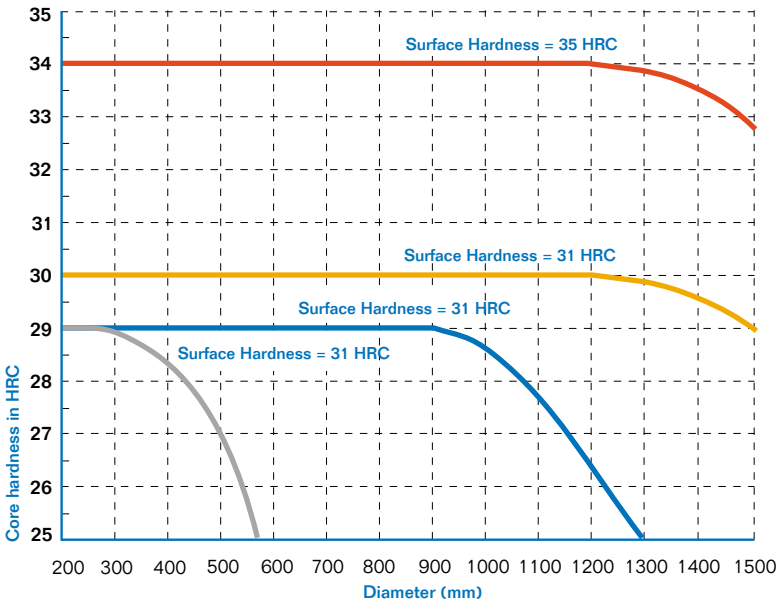
Clear advantages for the injection moulding industry

- Excellent product quality thanks to outstanding etch grain and mirror finish reliability
- High gloss polishability in the HighHard grade, for applications such as producing transparent parts
- Excellent wear resistance due to high hardness up to 38 HRC
- Significantly increased mould service life due to uniform hardness through to the core, even with the largest dimensions
- High strength, good toughness and low internal stress provide a high degree of resistance to costly tool damage
- Productivity benefits with increased thermal conductivity

Regular grade: 280 – 325 HB; 950 – 1100 N/mm², Abbreviation: **2738mod. TS**
HighHard grade: 310 – 355 HB; 1050 – 1200 N/mm², Abbreviation: **2738mod. TS (HH)**

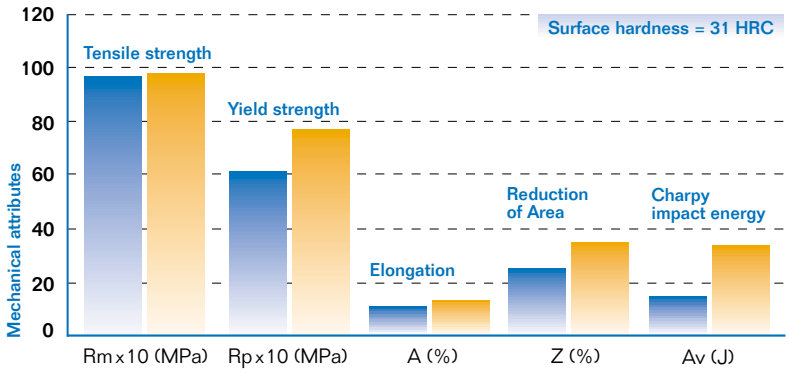
Hardenability

- THRUHARD SUPREME (HighHard)
- THRUHARD SUPREME
- 2738
- 2311



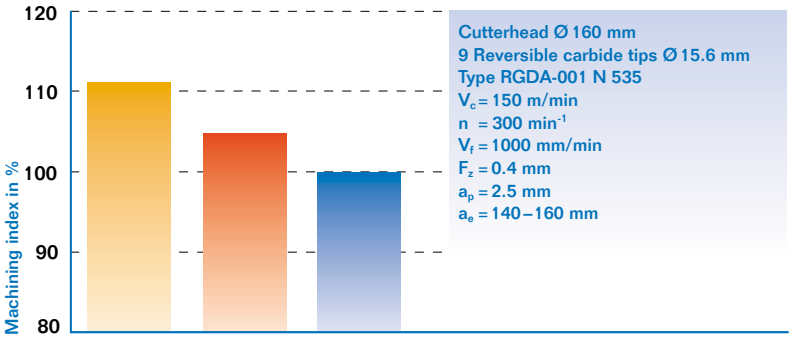
Mechanical attributes

- 2738
- THRUHARD SUPREME



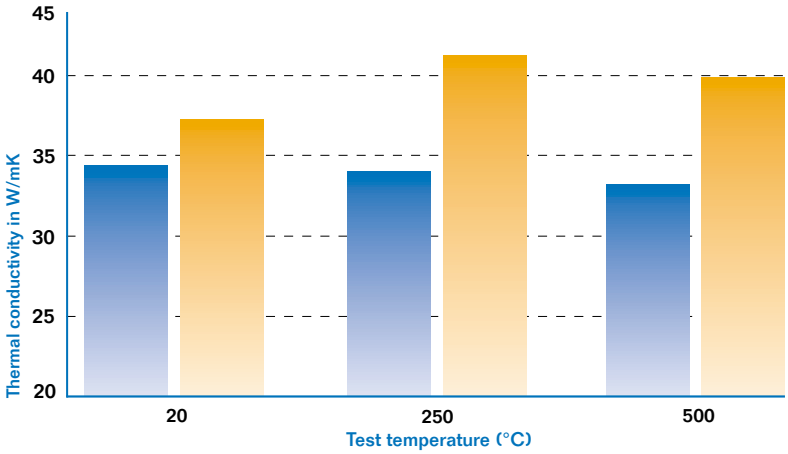
Machinability

- THRUHARD SUPREME
- THRUHARD SUPREME (HighHard)
- 2738



Thermal conductivity

- 2738
- THRUHARD SUPREME



Precision of the highest Order

The increasing demand for reliable and economical production processes in the mould making and plastics industries requires the highest possible performance standards in the mould steel used.



A completely new hardening process has also been developed to ensure the required uniform strength from the surface through to the core. The high toughness and low internal stress of THRUHARD SUPREME have been achieved by optimized chemical analysis and innovative heat treatment.

Excellent prospects for the future

Systematic improvement of the 2738 grade mould steel has succeeded in creating an exceptionally versatile, low-segregation, through-hardening, high cleanliness mould steel with ingot weights in excess of 100 tonnes – THRUHARD SUPREME. An improved metallurgical process ensures excellent purity and homogeneity, giving the new mould steel its isotropic structure.

Buderus Edelstahl – Global Network

Buderus Edelstahl – a name that stands for production and processing of high quality special steels. Buderus Edelstahl is one of the world's leading companies in this demanding segment. Outstanding quality, performance and responsiveness come as standard with Buderus Edelstahl, as do flexibility and service delivery. More than 50 agents with stockholding service facilities ensure close customer support and market presence. With quality products used in automotive and power transmission engineering, in machine building and industrial plant engineering, in tool and mould making, Buderus Edelstahl is now a global player.

Buderus Edelstahl supplies

- Rolled billets
- Hot and cold rolled special steel strip in coils and cut to length, up to 410 mm wide
- Closed die forgings up to 130 kg
- Open die forgings from ingots up to 140 tonnes
- Tool steels for mould and tool making High-grade structural steels for plant and power transmission engineering

Our worldwide network means close support for our customers.



Buderus

EDELSTAHL

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