



## durostat 400/450 toughcore

### Wear-resistant steels with especially high toughness and best processing properties

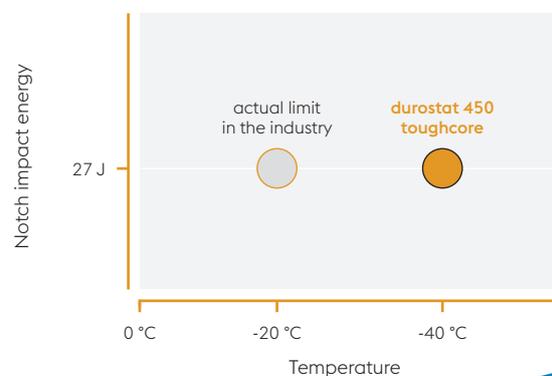
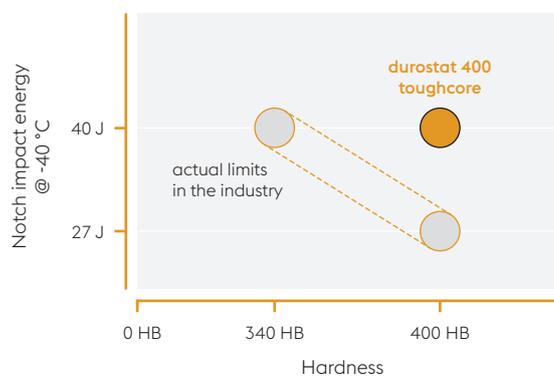
toughcore® makes it possible to shift current limits and match the most stringent material requirements.

#### durostat 400 toughcore

durostat 400 toughcore offers significant advantages when compared to conventional wear-resistant steels with respect to hardness and toughness. The unique combination of 20% higher hardness and excellent toughness properties of 40 J down to a temperature of minus 40 °C is not achievable when conventional manufacturing technologies are used.

#### durostat 450 toughcore

The new and patented toughcore® manufacturing technology maintains the same hardness while significantly improving the toughness of durostat 450 to a level not achieved by conventional wear-resistant steel plates. Their exceptional toughness results in a higher level of safety and can be used in applications where conventional materials meet their limits.



## Wear tests of durostat® toughcore

A wear test, based on the ASTM G65 ABRASION TEST as well as Rockwell C tip scratch test and executed by the Austrian Excellence Center for Tribology shows the remarkable benefits of durostat® toughcore wearplates down to a test temperature of -40 °C.

The wear performance was determined by loss of volume and depth of the scratch. It was evaluated, that durostat 400 toughcore showed an approx. 20% better wear performance, than the competitor material.

## Convincing advantages of durostat® toughcore

<b>50% higher toughness than conventional material</b>
Guaranteed toughness for low temperature applications
<b>20% higher hardness down to -40 °C than conventional material</b>
Reduced plate thickness and weight as a result of high hardness
Longer service life with much higher resistance to wear
<b>Unique toughcore® manufacturing technology</b>
Best surface quality due to thinner rolling scale
<b>State-of-the-art alloying and low carbon content</b>
Good weldability, no preheating for small plate thicknesses

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