

Steel

# perdur<sup>®</sup>

Extreme demands call  
for a resilient partner.



thyssenkrupp





Wear-resistant cut-to-length  
sheets and strong partnerships  
have a name: perdur®





perdur® is our brand for innovative, wear-resistant cut-to-length sheets with an extensive customer service offer. Ideal for use in high-wear components in dumpers, garbage trucks, roll-off/skip loaders and agricultural machinery.

#### The advantages of perdur® at a glance

- Ⓒ High wear resistance
- Ⓓ Guaranteed toughness
- ✓ Good cutting and welding properties
- ★ Good surface quality and flatness
- ✂ Lightweight construction potential saves costs and weight
- 💡 Experienced materials partner with application know-how and innovation expertise

# The indestructible cut-to-length sheets

perdur<sup>®</sup> 400 and perdur<sup>®</sup> 450 offer you versatile cut-to-length sheets that combine high wear resistance with excellent forming properties, offering guaranteed durability and all the advantages of thyssenkrupp steel in a single product.

Our perdur<sup>®</sup> cut-to-length sheets are available in a thickness range from 4.00 mm to 8.00 mm. Due to their very tight thickness tolerance, they offer both the advantage weight reduction, as well as better cold forming properties.



perdur<sup>®</sup> instead of quarto: a lasting change.

In comparison to classic quarto sheets of the same dimensions, perdur<sup>®</sup> possesses better resistance to brittle fracture and is thus ideally suited for high-quality processing in your customized applications.

# The wear-resistant partnership

Our perdur® cut-to-length sheets underline our goal to provide comprehensive customer service from materials consulting and innovation all the way to application and process optimization.

## Benefit from our experience

As an experienced materials technology partner, thyssenkrupp Steel has always been synonymous with innovative, custom solutions – especially where cut-to-length sheet products are concerned.

## Trust is our success

Our sales and technical customer service teams maintain close contact with our customers and can look back on years of experience and partnerships across many industries.



## Shaping the future together

We support our customers with our know-how and team of experts, and provide a partner to develop and manufacture high-quality and tailor-made wear-resistant steels, which will also include "green" wear-resistant cut-to-length sheets on demand in the future.

# An efficiency and eco upgrade for your customer products



Our perdur® cut-to-length sheets are characterized by their excellent economic efficiency. However, the series also has many positive effects in terms of weight optimization and environmental protection, offering many a robust argument – also for your customers:

- ➔ lower dead weight
- ➔ significant payload increase
- ➔ substantial fuel savings
- ➔ better eco and CO<sub>2</sub> footprint during operation
- ➔ economic cost reduction thanks to more durable wear parts



For example, our wear-resistant steels used on the tail lifts of garbage trucks last up to three times longer than conventional structural steel.

perdur® also offers new potential for lightweight construction with a lower dead weight for your customers' vehicles. A lower dead weight allows dumpers to transport more bulk materials per trip. This allows your customers to benefit from fuel savings that are also reflected in their CO<sub>2</sub> balance.

perdur® helps to design vehicles that are both economical and ecologically sustainable. A road to a new level of innovation, on which we would like to accompany you as your ideal materials partner equipped with the necessary application know-how.



## Available steel grades

### perdur® family overview

	Material number	Special feature	Delivery form
<b>Name of steel grade</b>			
perdur® 400	1.8714	Guaranteed toughness <sup>1</sup>	Cut-to-length sheet
perdur® 450	1.8722	Guaranteed toughness <sup>1</sup>	Cut-to-length sheet

<sup>1</sup>Notch impact test at a temperature of minus 20 °C.

## Available sizes

### Cut-to-length sheet

	Thickness [mm]	Maximum width [mm]
<b>Name of steel grade</b>		
perdur® 400	4.0 – 8.0	1,500
perdur® 450	4.0 < t < 6.0	1,500
	6.0 – 8.0	1,600

Length: minimum 2,000 mm, maximum 16,000 mm.  
Further sizes on request.

## Mechanical properties

### Test direction in direction of rolling, as-delivered condition: thermomechanically rolled with accelerated cooling

	Brinell hardness	Impact energy		Yield strength	Tensile strength	Elongation
	[HBW]	KV Min. [J] at -20 °C	KV Typ. [J] at -40 °C	R <sub>p0.2</sub> typ. [MPa]	R <sub>m</sub> typ. [MPa]	A typ. [%]
<b>Name of steel grade</b>						
perdur® 400	370 – 430	27	45	1,100	1,300	11
perdur® 450	420 – 480	27	40	1,200	1,450	10

## Steel

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