



BusaDUR®

Wear Protection Technology

Busatis developed our most versatile coating technology **BusaDUR®** for highly stressed machine components in wear-intensive industries.

Advantages of the BusaDUR® wear protection coatings:

- ▶ High versatility regarding a variety of materials
- ▶ Extreme variability regarding surface from a very smooth surface for efficient material flow
 - ▶ To a strong roughness for severe conditions
 - ▶ Wear resistance many times higher than pre-hardened steel
- ▶ Formability and workability after sintering process (rolling, edging, milling, grinding, welding)
- ▶ Saving of costs and time – less downtime
- ▶ Less maintenance effort

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A unique coating

- ▶ For 50 years, Busatis has been developing and producing various coatings for wear parts.
- ▶ **BusaDUR®** is an in-house development and a global unique sintering process.
- ▶ The main causes of abrasive wear are sand, stones and soil, for example in agriculture, construction and building materials industry, in mining and other industries.
- ▶ Busatis materials are made up of metal-matrix systems and hard materials.

Mass production

- ▶ Busatis manufactures products according to customer requirements using highly automated systems with the highest precision even for complex components.



Wear and cutting components

- ▶ Busatis started in 1888 as a "saw, machine knife, and tool factory" and today produces highly wear-resistant components "Made in Austria" for many industries as a premium manufacturer in top quality.

Great range of usage

- ▶ Extreme versatility in different application's
- ▶ Depending on user and application area, the surface is smooth or structured
- ▶ Reduces energy consumption in machine drive
- ▶ Offers optimum distribution of hard substances and is many times more durable than hardened steel

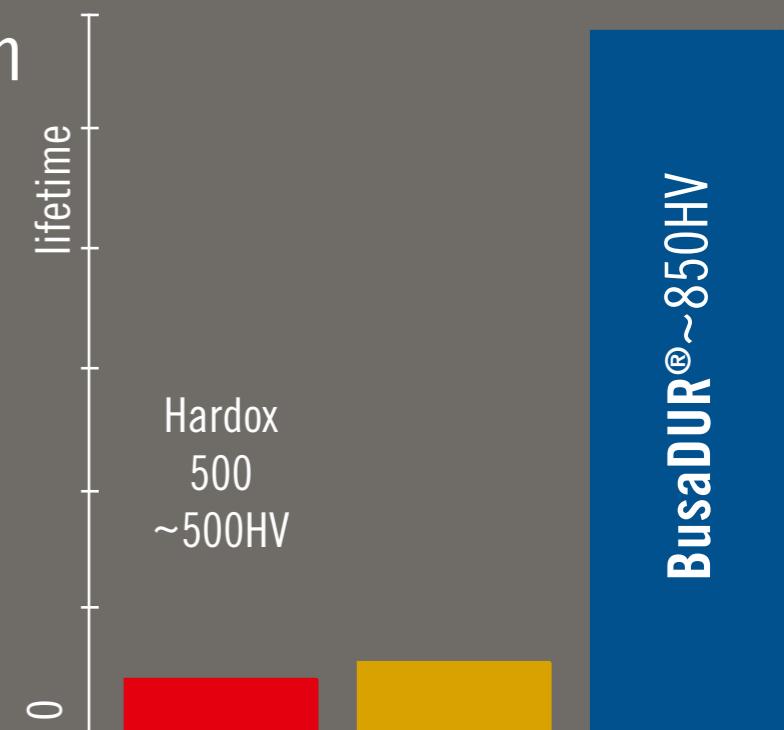
Key Characteristics

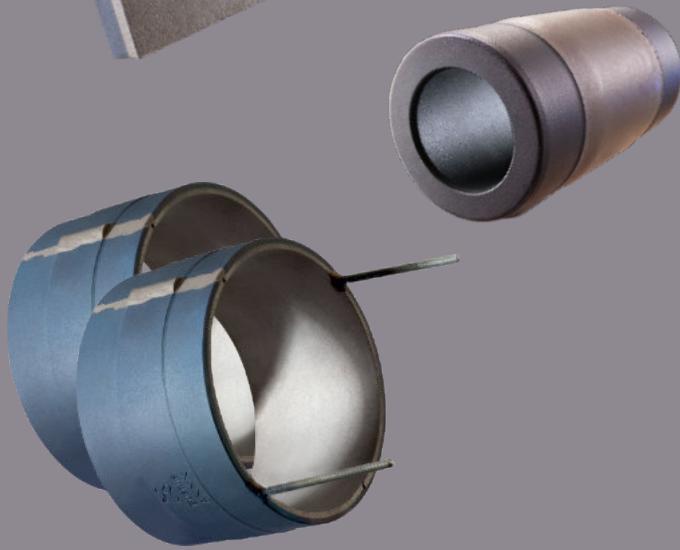
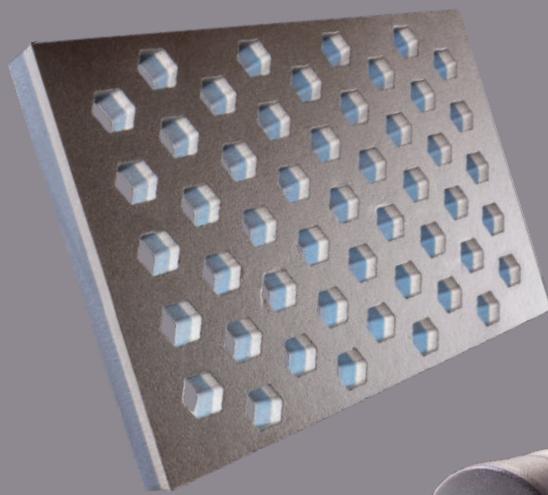
Material	Brand	Sheet metal hardend	BusaDUR®	
			Classic	Premium
Hardness HV	Hardness matrix	~520	775-900	300-900
	Hardness carbide	-	1500	1200-2000
Resistance	ASTM G65	-	+	++
	Fatigue	+	0	+
Roughness	Impact	++	0	+
	Temperature	-	+	0
Forming	Ra	sheet	4 µm	>= 6 µm
	Cold R =	250 mm	100 mm	-
Cutting	Hot R =	100 mm	Laser	Plasma
		Laser	Plasma	Plasma
Dimension		3000x2000 mm	1000x420 mm	1000x420 mm

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Service life comparison with uncoated materials

- ▶ The graphic illustrates the increase in service life of Busatis BusaDUR® wear protection coating compared to uncoated materials based on the American standard test (ASTM G65) conducted by AC²T (Austrian Center of Competence for Tribology).





What types of components are suitable for BusaDUR® coatings?

- ▶ From big flat surfaces to complex component geometries
- ▶ Coating thickness: 1-15 mm
- ▶ Base material thickness: 3-50 mm (other thickness on request)

On which substrate materials can BusaDUR® be applied?

- ▶ All weldable ferrous materials, including tempered steel

What are typical hardfacing materials of BusaDUR®?

- ▶ Standardized high-performance materials consisting of matrix alloys with synthetic or metallurgical precipitated hard materials

What are the advantages of BusaDUR® coatings?

- ▶ High flexibility due to modular coating technology, which allows a variety of materials to reach the requested properties exactly regarding wear
- ▶ Extreme variability regarding surface finish from a smooth surface without further processing for efficient material flow to strong roughness by adding hard material for severe conditions (e.g. soil cultivation)

Production and Quality: Busatis manufactures its products on the most modern, automated, and robot controlled systems and meets the strictest quality specifications by making use of its **expertise** and **technical equipment**. Busatis is able to manufacture **all products with consistent high quality**.

