



Hardox® wear plate in

Roadbuilding

HARDOX®
WEAR PLATE

What is your wear challenge?

Roadbuilding needs a variety of equipment, from trucks that transport heavy material long distances to machines that withstand extreme wear when breaking ground. The unique properties of Hardox® wear plate take you beyond conventional design thinking. For example, its superior hardness, strength and toughness allow for thinner steel that lowers overall weight and enables increased payloads.

Sustainability in action

Choosing Hardox® wear steel for your heavy equipment is a sustainable action you can take right now. Hardox® is helping to reduce the environmental impact of steel and of the equipment.

Its combination of high strength, hardness and toughness allows you to use less steel to build stronger yet lighter and more resource-efficient equipment that lasts longer.



Asphalt rollers

The optimum mix of hardness for wear resistance and ductility for workshop performance make Hardox® 450 an ideal choice for asphalt rollers.



Buckets

Hardox® 450 or Hardox® 500 Tuf enable a lightweight, high-capacity bucket with less fuel consumption and environmental benefits. Hardox® 500 in the cutting edge and side cutters gives a long and reliable service life, as it is a through-hardened wear steel.



Asphalt plants

Hardox® 500 Tuf to Hardox® 600 as liner plates, in gravel chutes, as drum wings, and in transport containers from the drum to the truck delivery shaft, depending on service life requirements. In temperatures up to 500 °C (932 °F), go for Hardox® HiTemp.



Bulldozers

Hardox® 450 and Hardox® 500 Tuf can be used for the entire blade. If lining or re-lining is required, Hardox® 550 or Hardox® 600 extend the service life of the blade tremendously.



Asphalt tipper bodies

Hardox® 500 Tuf in the body of tippers and dumpers is an outstanding wear fighter in these applications. Hardox® 500 Tuf also has great impact resistance, making it an excellent design solution.



Chutes

In the chute that leads into the crusher, Hardox® 500, Hardox® 550 or Hardox® 600 are suitable choices for this tough environment as they reduce the maintenance costs for your operation.

Road building cycle

- | | | | |
|---------------------|------------------|---------------------|-----------------------------|
| 1. Hydraulic hammer | 5. Crusher | 9. Tipper (asphalt) | 13. Asphalt roller |
| 2. Excavator bucket | 6. Bucket | 10. Tipper (gravel) | 14. Asphalt paver |
| 3. Bucket | 7. Bucket | 11. Bulldozer | 15. Tipper (asphalt) |
| 4. Excavator bucket | 8. Asphalt plant | 12. Motor grader | 16. Asphalt milling machine |



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Motor graders

Hardox® 450 and Hardox® 500 Tuf are recommended for the blades of the motor grader, while the cutting edges will benefit from using Hardox® 500. The high toughness of Hardox® will reduce the likelihood of unplanned maintenance and break-downs.



Crushers

Hardox® 500 and Hardox® 550 are used as liner plates in the interior areas. In areas of severe wear, liners in the harder grade Hardox® 600 can be a more cost-efficient solution.



Asphalt pavers

The excellent formability of Hardox® 450, Hardox® 500 Tuf and Hardox® 500 have convinced well-known manufacturers of the superior performance of Hardox® in the screed plates of asphalt pavers.

Wear: The inside story

Your choice of wear plate has consequences for your business. Hardox® wear plate maximizes the wear performance of your equipment and machines, reduces workshop lead times and increases the overall productivity of your operations.

Thanks to the consistent properties of Hardox® steel, you can always rely on its high performance. It also gives you a highly predictable service life, allowing you to optimize your maintenance planning.

With its combination of high hardness, high strength, and toughness, Hardox® steel can be used in a variety of applications.

What's the secret behind Hardox® wear plate? It starts early in production with state-of-the-art steelmaking and a unique hardening and quenching process, resulting in wear plates with outstanding hardness, toughness, and workshop friendliness.

Support at your service

In addition to our steel products, SSAB provides you with technical support from SSAB Tech Support and SSAB Knowledge Service Center. Our technical support can help with everything from optimizing your product design to hands-on workshop issues. Our technical development managers and material specialists have decades of experience in solving wear challenges.

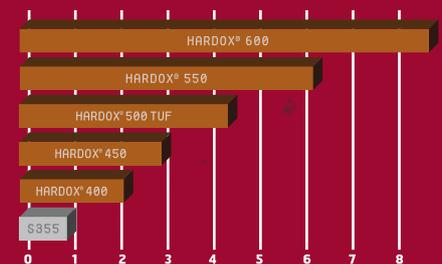
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Service life

Choosing the most suitable Hardox® grade for your application can have a great effect on the service life of your equipment. The table shows the relative service life of some Hardox® grades, with mild steel as a reference.*



* The calculations are based on sliding wear with granite.

Hardox® WearCalc

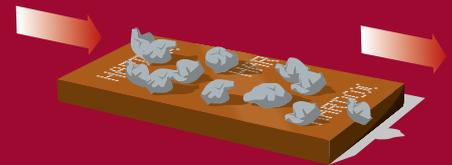
Hardox® WearCalc app is a powerful prediction tool that calculates wear and helps you optimize your choice of Hardox® wear plate. Visit hardox.com to download.

Different types of wear

Wear comes in different forms, and each has a different impact on the service life of your application. The most common wear types are sliding wear and impact wear. Each type of rock is composed of a unique combination of minerals which contribute to the specific type of abrasive wear damage.

Sliding wear

Hardox® steel has great resistance to sliding wear since it's difficult for abrasive materials to cut into the steel's hard surface.



Impact wear

Hardox® is a wear steel with high toughness, which makes it stand up to impact from rocks and other heavy objects striking the steel.

