



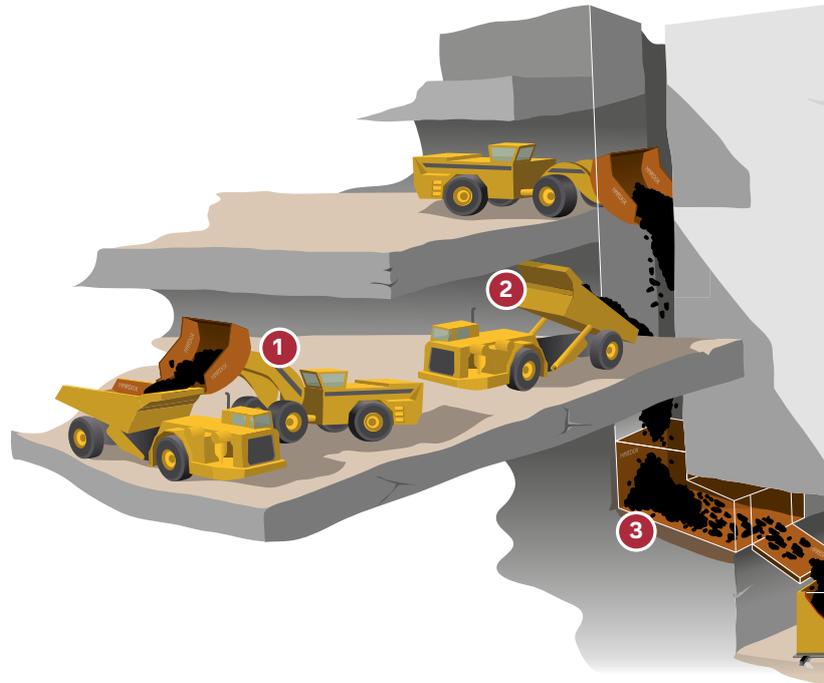
Hardox® wear plate in

Underground mining

HARDOX®
WEAR PLATE

What is your wear challenge?

Hardox® wear plate is a reliable and flexible solution for underground mining operations. Its outstanding weldability and workshop-friendly properties make it easy to perform on-site repairs, often inside the mine without having to bring the equipment to the surface. This keeps production up and maintenance costs down.



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.



LHD loaders

Hardox® 450 or Hardox® 500 Tuf are used as both a structural and a wear plate in load haul dump (LHD) loader buckets. Wear parts on the bucket can be produced with Hardox® 500, Hardox® 550 or Hardox® 600. Cutting edges are usually made of Hardox® 500.



Buffer bins

Hardox® 500, Hardox® 550 or Hardox® 600 can be used as wear liners for the buffer bins. If corrosive materials are handled, Hardox® HiAce is a good alternative.



Underground dump trucks and haulers

The high toughness and through-hardening of Hardox® 450 or Hardox® 500 Tuf enables the design of low weight bodies with a long service life and predictable maintenance intervals. In corrosive environments, Hardox® HiAce is recommended.

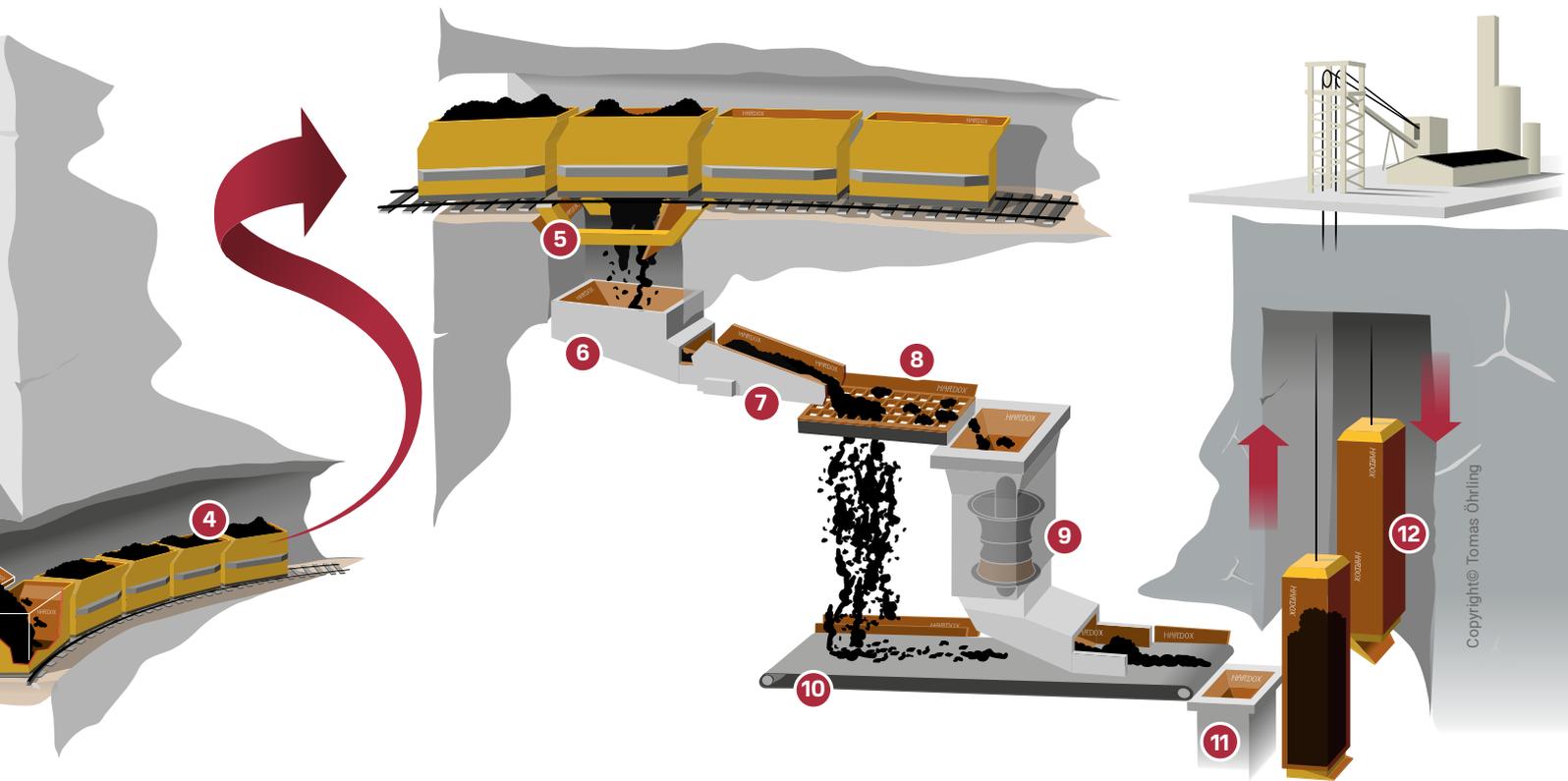


Railroad cars

Hardox® 450 or Hardox® 500 Tuf in the flooring and side walls of railroad cars make them highly resistant to wear and denting. In corrosive environments, for example copper concentrate or iron ore slurry, Hardox® HiAce can be beneficial.

Hardox® in underground mining

- | | | | |
|---------------|-------------------|------------|-------------------|
| 1. LHD loader | 4. Rail road car | 7. Feeder | 10. Conveyor |
| 2. Dump truck | 5. Discharge site | 8. Screen | 11. Measuring bin |
| 3. Buffer bin | 6. Transfer chute | 9. Crusher | 12. Skip |



Discharge sites

Hardox® 500, Hardox® 550 or Hardox® 600 are ideal for side liner plates at the discharge site. The grizzly bars can be made of Hardox® 500 or Hardox® 550.



Crushers

All Hardox® grades may be used as liner plates in different types of crushers. The most suitable grade depends on the abrasiveness and size of the material that is crushed.



Hoppers and feeders

Hardox® 500 or Hardox® 550 are the wear plates of choice for the hoppers and feeders of the primary crusher.



Measuring bins and skips

Hardox® 500, Hardox® 550 or Hardox® 600 are recommended for the lining of measuring bins and skips. To ensure an exceptional service life for the measuring bins, Hardox® Extreme is also an alternative.

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.

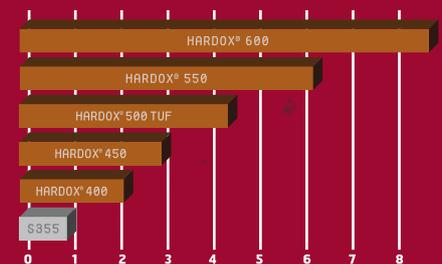
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Service life

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

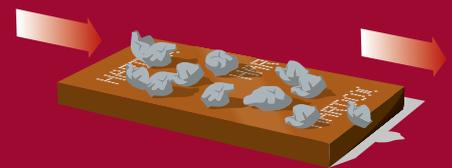
Hardox® WearCalc app is a powerful prediction tool that calculates wear and helps you optimize your choice of Hardox® wear plate. Visit hardox.com to download.

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.

