



Hardox® wear plate in

# Waste and recycling

**HARDOX®**  
WEAR PLATE

# What is your wear challenge?

Recycling processes, such as the fragmentizing of waste, places enormous demands on equipment. To stay productive and competitive it is vital to use materials that withstand the abuse. Hardox® wear plate is the solution. Developed specifically for tough demands, Hardox® wear plate allows recyclers and recycling equipment manufacturers to cut costs, improve service life, and optimize production.



## 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.



### 1. Garbage truck

Municipal waste creates a low pH environment which accelerates wear. In these environments, corrosion-resistant Hardox® HiAce can increase service life up to 2.7 times, compared to a 450 HBW steel.



### 4. Shredders

Hardox® 500, Hardox® 550 or Hardox® 600 are suitable for shredders. These steels have a high resistance against cracking or chipping compared to tool steel.



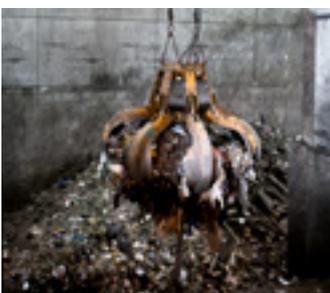
### 2. Liner plates

Hardox® 500, Hardox® 550 or Hardox® 600 can be used to line the walls of the sorting pockets, transfer chutes, hoppers, crushers and other equipment in recycling facilities.



### 5. Granulator knives

Hardox® 600 or Hardox® Extreme can be used for granulator knives when fragmenting materials such as aluminum cans, electronic waste, wood, plastic, and cables.



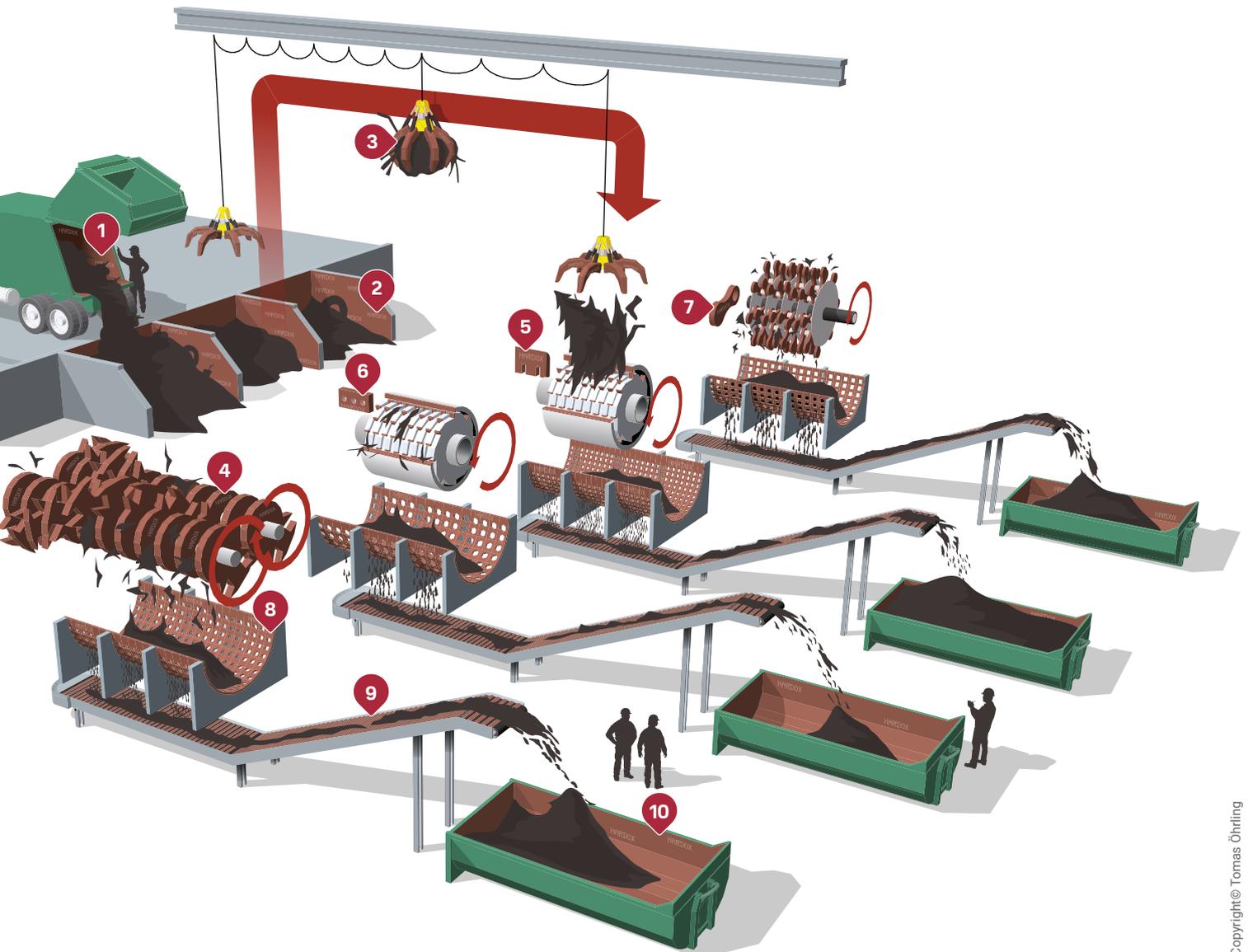
### 3. Grapples

Hardox® 450 or Hardox® 500 Tuf make grapples and other gripping equipment last longer. The high toughness ensures crack resistance, gives problem-free maintenance and reduces the risk for unplanned maintenance stops. If corrosive materials are handled, Hardox® HiAce is recommended.



### 6. Prismatic knives

Hardox® 600 or Hardox® Extreme are common grades for the fragmentation of waste, such as aluminum cans, electronics, wood, plastic, and cables.



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### 7. Hammer mills

Hammers in Hardox® 500, Hardox® 550 or Hardox® 600 are used for the fragmentation of waste and minerals. The high toughness of Hardox® steels provides high resistance against cracking.



### 9. Conveyor belts and chain conveyors

Hardox® 450 or Hardox® 500 Tuf can be used as skirt plates for conveyor belts, and also in chain conveyors.



### 8. Sieves and screens

Hardox® 450 or Hardox® 500 Tuf are recommended grades, or Hardox® 550 or Hardox® 600 for extremely abrasive environments. If corrosion and wear are present, Hardox® HiAce is a perfect choice and can replace stainless steel.



### 10. Containers

Hardox® 500 Tuf is well suited for the container sides and floor. The combined hardness and toughness offer a long service life and high resistance to impacts and dents. If corrosive materials are transported, Hardox® HiAce is recommended and presents a cost-effective solution.

## 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.

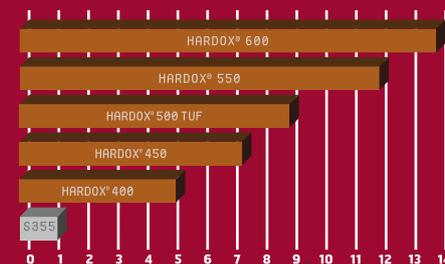
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### Service life

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 steel scrap.

### Hardox® WearCalc

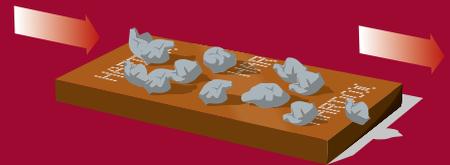
Hardox® WearCalc app is a powerful prediction tool that calculates wear and helps you optimize your choice of Hardox® wear plate. Visit [hardox.com](http://hardox.com) to download.

### 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.

