

# HOW TO CUT COSTS IN GLASS RECYCLING

Hardox® Extreme keeps sustainability high and wear low



Glass is 100% recyclable and can be recycled endlessly without loss in quality or purity. Does that make it the perfect candidate for profitable recycling?

Unfortunately not, since crushed glass is extremely hardwearing on the equipment it passes through at a recycling plant. Its ability to constantly form new sharp edges makes glass highly abrasive.

#### **MAKING GLASS PAY FOR ITSELF**

The margin for profitability in glass recycling is very slim. Every possible parameter has to be fine-tuned in order to secure the value of the processed glass. The choice of wear-resistant

material is one such make-or-break factor. Material cost, service life, and workshop-friendliness all have to be taken into account to find the most cost-effective solution.

Also important is that the wear-resistant material doesn't contaminate the glass in a way that degrades the glass quality.

Luckily, there is one material that has proven its worth: Hardox® Extreme.

# WEAR PERFORMANCE TESTED AND CONFIRMED

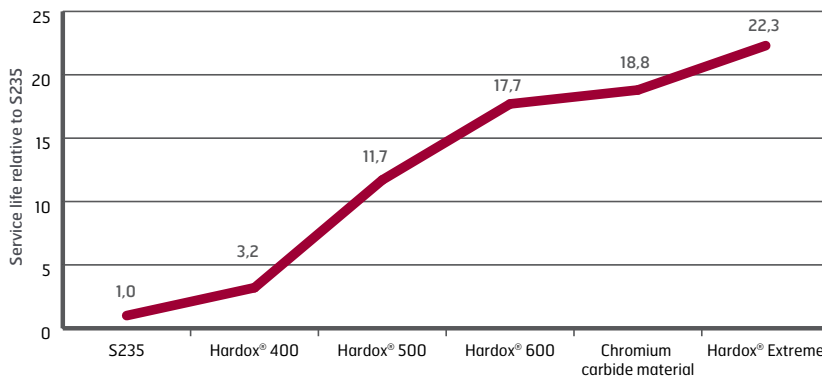
To better understand tough abrasive environments and the performance of different wear-resistant materials, SSAB has developed the Drum Wear Test.

Up to 34 samples can be placed inside an 800 x 100 mm (3.15 x 3.94") steel drum and tested in controlled conditions.

Hardox® Extreme performed well when tested with crushed glass from a glass recycling plant in Sweden. With a nominal hardness of 60 HRC (Rockwell) and typical hardness of 650-700 HBW, Hardox® Extreme outperformed the other tested materials. The high relative service life has also been confirmed in real-life applications.



Result for sliding wear with crushed glass  
Service life relative to S235/A36



## HARDOX® EXTREME IS UP TO THE JOB

Viridor Newhouse in Scotland is one of the glass recycling plants that has tried both Hardox® Extreme and Hardox® 600. The company worked with the Hardox Wearparts center in Stirling and SSAB's technical development team to perform a field test.

The results were very encouraging, offering an improved lifecycle cost and a commendable service life. This project has been a platform to address other difficult wear situations in the facility, such as drop-pockets in impact zones.

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