



The new generation wear plate

Hardox[®] 500 Tuf



Higher load capacity



Lighter dump bodies



Extended service life



Reduced fuel consumption

Hardox® 500 Tuf delivers high strength, extreme hardness and guaranteed toughness in a single wear plate.

Hardox® 500 Tuf combines the best properties from the Hardox® 450 and Hardox® 500 grades. The result is a wear steel with no real competition on the market.

Thanks to the superior resistance to dents and wear, equipment can withstand heavy impact and gain a longer service life in the most challenging environments. Since mining operations are regularly performed in freezing conditions, Hardox® 500 Tuf has the toughness necessary to cope, as the impact energy values indicate.

The toughness also allows Hardox® 500 Tuf to double as a structural material in heavy-duty mining dump bodies and trays, mining buckets of any size and other mining-related equipment, which need to be both strong and wear resistant.

Hardox® 500 Tuf has a guaranteed impact energy of 27 J at -20 °C (20 ft-lb at -4 °F), and a typical value of 50 J at -40 °C (37 ft-lb at -40 °F). It has an unusually narrow Brinell hardness window of 475-505 HBW.

The estimated relative service life for Hardox® 500 Tuf is 85-100% longer than for Hardox® 400 according to Hardox® WearCalc.*

* The calculations are based on sliding wear with granite.



Workshop-friendly

Hardox® 500 Tuf can be processed by the same kind of machinery used for other Hardox® grades. Bendability recommendations are similar to those for Hardox® 450.

Hardox® 500 Tuf

| Product | Hardness nominal HBW | Impact toughness CVT guaranteed J (ft-lb) | Impact toughness CVL typical J at -40 °C (ft-lb at -40 °F) | Relative service life interval (relative to Hardox® 400) | CEV/CET typical | Thickness range mm (inches) |
|----------------------------|----------------------|--|--|--|------------------------------|-----------------------------|
| Hardox® 500 Tuf wear plate | 490 | 27 (20) at -20 °C (-4 °F) for 20 mm (0.787") | 50 (37) for 20 mm (0.787") | 1.3-2.1 | 0.53/0.37 for 20 mm (0.787") | 4-38.1 (0.157-1.5) |
| Hardox® 500 Tuf wear sheet | 490 | 27 (20) at -40 °C (-40 °F) | 50 (37) | 1.3-2.1 | 0.52/0.35 | 3-7 (0.118-0.276) |

Hardox® 500 Tuf wear plate

| Width | 1000- | 1351- | 1500- | 1601- | 1701- | 1801- | 1901- | 2001- | 2101- | 2201- | 2301- | 2401- | 2501- | 2601- | 2701- | 2801- | 2901- | 3001- | 3101- | 3201- | 3301- | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Thickness | 1350 | 1499 | 1600 | 1700 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | 2500 | 2600 | 2700 | 2800 | 2900 | 3000 | 3100 | 3200 | 3300 | 3350 | | | | |
| 4.0-4.7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.8-5.7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.8-6.7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.8-7.7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7.8-8.7 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8.8-10.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.1-24.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 24.1-25.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25.1-26.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26.1-27.0 | 14000 | | | | | | | | | | | | | | | | | | | | 14200 | 14400 | | | |
| 27.1-28.0 | 13400 | | | | | | | | | | | | | | | | | | | | 14200 | 13700 | 13800 | | |
| 28.1-29.0 | 13000 | | | | | | | | | | | | | | | | | | | | 14100 | 13700 | 13300 | 12900 | |
| 29.1-30.0 | 12500 | | | | | | | | | | | | | | | | | | | | 14100 | 13600 | 13200 | 12800 | 12400 |
| 30.1-31.0 | 12100 | | | | | | | | | | | | | | | | | | | | 14100 | 13600 | 13200 | 12800 | 12400 |
| 31.1-32.0 | 11800 | | | | | | | | | | | | | | | | | | | | 14200 | 13700 | 13300 | 12900 | |
| 32.1-33.0 | 11400 | | | | | | | | | | | | | | | | | | | | 14200 | 13700 | 13300 | 12900 | |
| 33.1-34.0 | 11100 | | | | | | | | | | | | | | | | | | | | 14200 | 13700 | 13300 | 12900 | |
| 34.1-35.0 | 10700 | | | | | | | | | | | | | | | | | | | | 14400 | 13800 | 13300 | 12900 | |
| 35.1-36.0 | 10400 | | | | | | | | | | | | | | | | | | | | 13900 | 13400 | 12900 | 12500 | |
| 36.1-37.0 | 10200 | | | | | | | | | | | | | | | | | | | | 14100 | 13600 | 13100 | 12600 | |
| 37.1-38.1 | 9900 | | | | | | | | | | | | | | | | | | | | 14300 | 13700 | 13200 | 12700 | |

Maximum length 14630 mm (576")

Hardox® 500 Tuf wear sheet

| Width | 950- | 1001- | 1201- | 1251- | 1301- | 1501- | 1526- | 1551- | 1576- | 1601- | 1626- |
|-----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Thickness | 1000 | 1200 | 1250 | 1300 | 1500 | 1525 | 1550 | 1575 | 1600 | 1625 | 1650 |
| 3.00-3.09 | | | | | | | | | | | |
| 3.10-3.19 | | | | | | | | | | | |
| 3.20-3.99 | | | | | | | | | | | |
| 4.00-4.49 | | | | | | | | | | | |
| 4.50-4.79 | | | | | | | | | | | |
| 4.80-4.99 | | | | | | | | | | | |
| 5.00-5.99 | | | | | | | | | | | |
| 6.00-6.40 | | | | | | | | | | | |
| 6.41-7 | | | | | | | | | | | |

Maximum length 16000 mm (629.8")

■ Outside the range of dimensions

□ Some restrictions, contact your local sales representative for information

The data in these tables may be subject to change without notice. Please download the latest version of the respective Hardox® wear plate product data sheet at www.hardox.com.

Hardox® is a trademark of the SSAB group of companies. The information contained in this brochure is provided only as general information. SSAB AB accepts no responsibility for the suitability or appropriateness of any application. It is the user's responsibility to independently determine suitability of all products, and or applications, and to test and verify the same. The information provided by SSAB AB hereunder is provided "as is, where is" and with all faults, and the entire risk associated with such information is with the user. Copyright © 2025 SSAB AB. All rights reserved.