



- [Product leaflet](#)

KP30 alloy for ARMOUR mill liners

A game changing innovation for longer wear life for mill liners.

The KP30 alloy is a next-generation casting alloy developed by FLS specifically for mill-liner duty. Its engineered balance of hardness and toughness withstands high-energy impacts and severe abrasion inside the mill, extending liner life and stabilising wear. Customers gain more reliable campaigns, safer relines and tighter control of availability and cost-per-tonne.



Key benefits

Longer liner wear life

Up to 30% longer wear life compared to similar alloy compositions

Stabilise operations

Consistent wear profiles improve grind stability and simplify shutdown planning.

Minimise disruption

Drop-in casting to existing profiles and fastenings helps preserve mill performance and reline practices.

Assure quality and safety

OEM procedures, inspections and NDT/ weld qualifications available; structured teardown-to-sign-off workflow supports predictable turnaround.

Technical highlights

Designed for milling

Alloy development is driven by Design of Experiments (DOE) methodologies, with heat-treat windows optimised to balance impact resistance and abrasion performance in SAG, AG, and ball mill applications. Precise microstructural control creates a refined hard-phase network within a tough, ductile matrix, improving resistance to gouging, spalling, and premature liner failure under severe operating conditions.

Reliable quality

OEM-aligned procedures and inspection checklists are applied throughout fabrication, with weld qualifications and non-destructive testing (NDT) available on request. Fabrication and assembly are performed under controlled conditions, including validated cold-weather practices where required to maintain quality and dimensional integrity. Work is coordinated with FLS field service teams to support on-site audits, commissioning, and customer training, ensuring correct installation and long-term performance.

Liner types and fit

KP30 alloy is castable across a wide range of mill components, including lifter bars, shell and head plates, grates, and pulp lifters. It is fully compatible with common fastening systems and integrates seamlessly with existing FLS ARMOUR and OEM liner profiles, enabling straightforward replacement and retrofit.

Operational support

Wear mapping and change-out planning support are provided to optimise replacement timing and improve maintenance predictability. A structured teardown-to-sign-off workflow enables repeatable turnarounds, reduces variability during shutdowns, and supports safer maintenance interventions.



Scan for more



FLS is a leading, full flowsheet minerals processing supplier to the global mining industry. We deliver proven technologies and services across the lifecycle of operations, and have set targets of providing solutions for zero-emissions mining by 2030 with our MissionZero programme.

Get in touch



fls.pro/contact-us

Follow us

 www.linkedin.com/showcase/flsmidth-mining/

 www.youtube.com/user/flsmidth

Copyright © 2026 FLSmidth A/S. All rights reserved. FLSmidth and FLS are trademarks of FLSmidth A/S.

Any information provided in brochures, datasheets, white papers, product catalogues, videos, or other materials, whether in writing, orally, electronically, online, or via download, is for general informational purposes only and may change without notice.

FLSmidth makes no offers, representations, or warranties of any kind (express or implied) regarding the accuracy, completeness, or reliability of the information and shall not be liable for any loss or damage resulting from its use.

FLSmidth reserves the right to alter its products without prior notice.