



SAMUEL ULTRAWEAR & ULTRAWEAR MAX CCO

Samuel's proprietary UltraWear CCO (chromium carbide overlay) plate provides exceptional wearability and slideability. Field experience has proven Samuel UltraWear CCO to be highly cost-effective in both intense abrasive wear and product hold back areas. UltraWear has been developed to suit applications that require performance under highly abrasive environments that also require impact toughness. The process of creating the extremely hard surface of this unique plate product involves melting accurately blended metal powders to a steel base plate using sub-arc welding.

Founded in 1855, Samuel, Son & Co. is a family-owned and operated, integrated network of metal manufacturing, processing and distribution divisions.

With over 4800 employees and 100+ facilities, Samuel provides seamless access to metals, industrial products and related value-added services.

Features

- Easily cut, welded and formed
- Overlay can be applied to both sides of the plate
- Very Smooth after wear-in
- Large plate sizes
- Lead the industry in flatness
- Size of plate is actual overlay coverage
- Engineer on staff
- ASME IX Compliant

YOUR SUCCESS IS OUR BUSINESS


SAMUEL 1855



CHROMIUM CARBIDE OVERLAY PLATE

We are pleased to have available three thicknesses of our latest variation — Samuel's UltraWear Max — which has been developed to suit applications for maximum life expectancy due to high abrasion resistance in lower impact environments than our standard UltraWear plate. UltraWear Max is also suited to oil sands applications to meet G-65 requirements and CVF.

SHAPE CUTTING AND FORMING

Samuel's UltraWear and UltraWear Max plate can be easily cut to dimensions using plasma torch, water jet or arc air gouging. They can be rolled both with and across the weld seams. Whenever possible CCO should be formed to the inside of the radius. However, it can be formed to the outside as long as a radius of 20x thickness is maintained.

VALUE-ADDED SERVICES

Samuel offers laser scanning, cutting, contour beveling, forming, fabrication and project management services.

MACHINING

This product cannot be machined or drilled by conventional means. Both countersunk and square holes must be cut by plasma torch or water jet.

INSTALLATION

To obtain maximum wear life, weld beads should be installed at 90 degrees to the flow of material whenever possible. To prevent turbulence in applications such as fan blades, it is sometimes necessary that weld beads run in the direction of flow. Samuel's wear solutions experts will be happy to provide installation guidance if desired.

CUSTOMER BENEFITS

- Can be cut on the job site
- Can readily be formed to special shapes often saving fitting and welding of smaller pieces
- Great for applications involving wear on both sides of the plate such as deflectors
- Minimal holdback in buckets – get maximum capacity and increase efficiency
- Reduced welding costs with fewer seams
- Reduced scrap when nesting parts
- Less hassle when fitting or forming plates
- Quick responses on technical questions or spec reviews
- Will work with you on unique requirements
- Consistent and compliant product

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SPECIFICATIONS INCLUDING ROCKWELL HARDNESS SCALE RATINGS

Material Grade	Thickness	Colour Code	Hardness (HRC)	Standard Size (in)
UltraWear	188	Blue	52-56	90 × 240
	250	Black	52-56	90 × 240
	375	Grey	52-56	90 × 240
UltraWear Max	250	Black	58-65	90 × 240
	375	Grey	58-65	90 × 240
	500	Red	58-65	90 × 240

Alternate base materials can be used, such as SA 516-70. Custom overlay thicknesses can be produced upon request. Please contact us to inquire about any additional specification requirements you may have.

We invite you to experience the Samuel advantage by contacting us today.

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