



# LIGER™ CCO – DATA SHEET

## CCO Overview

Chromium carbide overlay (CCO) is a wear-resistant steel plate created by welding a hard, chromium-rich carbide layer onto a mild steel base. This engineered surface dramatically increases hardness and abrasion resistance while maintaining structural flexibility. It is primarily used in mining, quarrying, cement, steel, and power-generation applications where severe wear and impact are common, such as chutes, buckets, hoppers, and liners.

## Backing plate

Q235B / A36 / SS400 Mild Steel

## Overlay

High-chromium / high-carbon alloy: C-Cr-Cn-Mn-Si-Ni-Nb Fe  
Cr7C3 carbide volume fraction: over 50%

**Main Chemical Composition ( wt% ), triple layer welded**

Alloy Components	C	Cr	Mn	S	P	Si	Mo+Nb+B+Ni+V+W+other
	4.5-55	23-28	0.6-1.0	≤0.015	≤0.021	0.7-1.2	1.6-2.5

## Hardness

Single layer: 55-60 HRC; Double layer: 60-62 HRC; triple plus layer: 60-64 HRC

## Alloy Description

Martensite Chrome Carbide

## Main industries

Mining & Mineral Processing, Cement, Sand & Gravel, Pulp & Paper, Power Generation, Oil Sands & Energy, Construction & Earth Moving

## Application

Chutes, Hoppers, Dozer Blades, Draglines, Conveyor Liners, Fan Blades, Truck Bed Liners, Crusher Surfaces

## Temperature

Up to 450°C

## Thickness

5 on 3, 4 on 4, 6 on 4, 8 on 5, 8 on 6, 8 on 7, 8 on 8, 10 on 8, 10 on 10, 10 on 12  
Customized thickness is available

## Standard Size

5 on 3, 4 on 4, 6 on 4, 8 on 5, 8 on 6, 8 on 7, 8 on 8, 10 on 8, 10 on 10, 10 on 12

## Formability

Minimum Rolling Radius: 300mm (for 5 on 3 plate, with hard facing inside)

## Cutting Methods

Plasma, Water Jet, Laser, Saw Cutting & Gouging

## Attachment Methods

Welding, Countersink, Stud Bolts

