

DGC EC190 CHROMIUM CARBIDE OVERLAY

EC190

EC190 is manufactured with high quality materials as a bulk overlay of high chromium, high carbon alloy onto a base plate utilising submerged arc welding to achieve a wear resistant plate for use in a variety of material handling applications.

BASE PLATE

The standard base material is mild steel plate of varying thickness, ensuring the finished parts are readily weldable. Alternative base plate grades can be incorporated with the **EC190 overlay** to meet specific customer requirements.

OVERLAY MATERIAL

The **EC190 overlay** consists of primary M_7C_3 carbides in a eutectic matrix of martensite, with the potential for the presence of retained austenite and eutectic M_7C_3 carbides.

SPECIFICATION

EC190 overlay has been manufactured to ensure compliance with AS/NZS 2576:2005 Grade 2560.

TYPICAL PROPERTIES

Bulk Hardness:	700 - 780 HV30 (60 - 64 HRC)
Primary M_7C_3 carbide:	~1500 HV _{0.5}
Volume fraction Primary Carbides:	25% to 40%

WELDING

The base material can be welded with standard low hydrogen welding consumables. (Avoid contact with overlay material)

CUTTING, FORMING AND FABRICATION

Plasma cutting is the recommended method for cutting **EC190**. The mild steel backing plate provides **EC190** with structural integrity, thus allowing entire structures to be fabricated from **EC190**.



Technical Data Sheet available upon request.

BENEFITS

- Welding into position is made easy due to mild steel base.
- Proven performance against Q&T Steels
- Excellent wear properties of casting
- Readily formed into almost any shape mild steel can.

APPLICATIONS

Applications involving high sliding abrasion and medium impact, such as:

- Fine Ore Handling Systems
- Cyclones
- Sizing screens
- Dust extraction systems
- Fan blades



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