

# ECI80™

# **Chromium Carbide Overlay**

ECI80<sup>™</sup> 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 ECI80 overlay to meet specific customer requirements.

# **Overlay Material**

The ECI80 $^{\text{m}}$  overlay consists of primary  $M_7C_3$  and MC carbides in a eutectic matrix of austenite and eutectic  $M_7C_3$  carbide.

# **Specification**

ECI80<sup>™</sup> overlay has been manufactured to ensure compliance with AS/NZS 2576:1996 Grade 2455.

# **Typical Properties**

Bulk Hardness: ~630 HV30 (~57 HRC)

Primary  $M_7C_3$  carbide: ~1500 HV<sub>0.5</sub> Volume fraction Primary Carbides: 15% to 35%

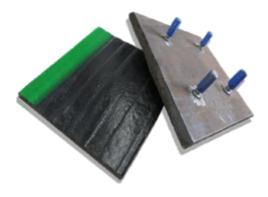
#### Welding

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 ECI80 $^{\text{\tiny M}}$ . The mild steel backing plate provides ECI80 $^{\text{\tiny M}}$  with structural integrity, thus allowing entire structures to be fabricated from ECI80 $^{\text{\tiny M}}$ .





Technical Data Sheet available upon request.

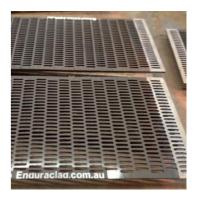
# **Benefits**

- 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.

- Chutes
- Ore Bins
- Feeders
- Excavator bucket protection
- Stackers
- Mobile Plant
- TLO Systems
- Hoppers
- · Screen decks
- Spill plates



#### Perth (Head Office)

#### **Brisbane**