DESCRIPTION:
PH16TC is a smooth running, basic flux low hydrogen electrode, developed for all-positional (except vertical down) welding, using AC or DC power sources. The electrode gives exceptional stability and weldability for its class, and produces high quality weld deposits with reliable notch toughness to -40°C. PH16TC is manufactured using a unique twin coating extrusion process, which produces electrodes with two concentric flux coatings. Arc stabilising elements are concentrated in the inner coating of the electrode for significantly improved arc stability on low open circuit AC welding machines.

Applications:
PH16TC is the ideal low hydrogen electrode for welding unalloyed and low alloy medium strength steels used in a multitude of critical and non-critical applications. This electrode is particularly suitable for welding heavy wall joints subject to high degrees of restraint and for structural applications where notch toughness down to -40°C is a prerequisite. PH16TC is often used in maintenance situations as a buffer or build-up layer on agricultural and earth moving equipment prior to hard surfacing.

Welding Techniques
Arc striking and re-striking is easily accomplished. Use a light dragging action at the rod end to achieve ignition. Welding is carried out with a short arc and low travel speeds.

Recommended Amperages

Dia. mm	Length mm	Amperes
2.5	305	60-90
3.2	380	90-135
4.0	380	140-190

AC 45 OCV for 2.5 and 3.2 mm
AC 55 OCV for 4.0 mm DC +

Typical Mechanical Properties of Weld Metal

Tensile Strength	518 MPa
Yield Value	426 MPa
Elongation	33%
Impact Value Charpy V Notch at -40°C Average	118 J

AWS A5.1:2004 : E7016 H8
AS/NZS 4855B:2007 : E4916AU H10

WELDWELL

16TC

LOW HYDROGEN ELECTRODES FOR WELDING MILD AND MEDIUM-TENSILE STEELS

TIP COLOUR Bronze
FLUX MARKING PH16TC 7016 4916A

Approvals:
American Bureau of Shipping
Lloyds Register of Shipping
Det Norske Veritas

Welding Positions:
F, H, V, OH

Typical Chemical Analysis

C	0.05%
Mn	1.18%
Si	0.52%

Storage (see also page 77.)
Once the packet has been opened, these electrodes should be stored in a heated cabinet at a temperature of 20°C minimum and/or at least 10°C above ambient. Good ventilation should be allowed.

For highest weld quality, these electrodes should be baked before use at 300°C for two hours to achieve a maximum weld metal hydrogen level of 10ml/100g.