

Leak Before Press

Water Kinetics Eco-Duo Copper fittings are manufactured with a subtle triangulation of the mouth of the fitting, this feature ensures joints will leak if inadvertently left un-pressed.

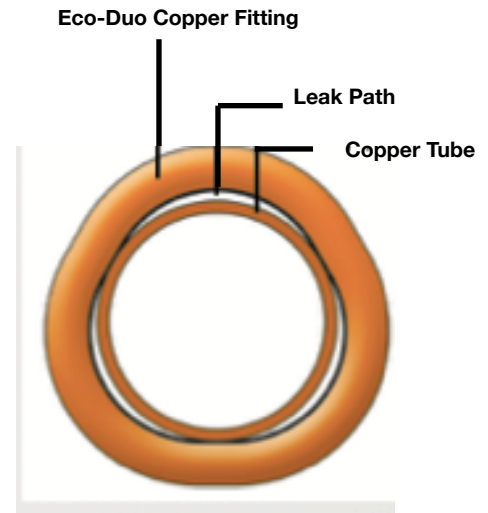
Any un-pressed joints can be identified during system testing and rectified.

Electrical Continuity

When installed correctly Eco-Duo COPPER will provide electrical continuity across joints and is suitable for supplementary equipotential bonding.

MATERIALS

Eco-Duo COPPER is made from robust engineering materials.



All Eco-Duo Fittings have a Black 'O' Ring	
Body	Copper or Copper Alloy
Seal	EPDM

Water Kinetics Eco-Duo fittings use the same O ring technology to provide the best and widest range of heat free jointing. It is important to check compatibility between the O Ring and the fluid in the system. The table below is a guide for the Contractor, Installer and Specifier, and shows the compatibility of the Black 'O' Ring with common fluid types and some gases.

EPDM - Ethylene Propylene Diene Monomer - This is the standard, **BLACK** O Ring that is used in Eco-Duo Copper ranges. This material is also used for the Leak before Press O Rings used in Eco-Duo fittings.



Designation	Black
	EPDM Tectite/XPress
Maximum service temperature °C	180
Low service temperature °C	- 50
Water/Steam Resistance	
Water/Steam resistance <40°C	✓✓✓
Water/Steam resistance <80°C	✓✓✓
Water/Steam resistance <150°C	✓✓
Water/Steam resistance >150°C	✓

Designation	Black
	EPDM Tectite/XPress
Oils and Fuels cont	
Hydraulic oils (petroleum base)	X
Lubricating oils	X
Paraffin	X
Petrol	X
Silicone oil/grease	✓✓✓
Transformer oils	X
Vegetable oils	✓
Solvents	
Acetone	✓✓✓
Benzene	X
Carbon tetrachloride	X
Dimethyl formamide	✓✓
Ethyl acetate	✓✓
Methyl ethyl ketone	✓✓✓
Tetrachloroethylene	X
Toluene	X
Turpentine	X
Xylene	X
Miscellaneous	
Ethylene glycol	✓✓✓
Detergents	✓✓✓
Dioctyl phthalate	✓✓
Formaldehyde	✓✓✓
Hydrogen peroxide (90%)	✓✓
Phosphate esters	✓✓✓
Potassium nitrate	✓✓✓

Designation	Black
	EPDM Tectite/XPress
Fluids Resistance	
Acid	
Acetic 10%	✓✓✓
Formic	✓✓✓
Hydrochloric 20%	✓✓✓
Nitric 30%	✓✓✓
Phosphoric 20%	✓✓✓
Sulphuric 30%	✓✓
Alkalis	
Barium hydroxide	✓✓✓
Calcium hydroxide	✓✓✓
Sodium hydroxide	✓✓✓
Alcohols	
Butyl alcohol (Butanol)	✓✓
Ethyl alcohol (Ethanol)	✓✓✓
Methyl alcohol (Methanol)	✓✓✓
Amines	
Ethylene diamine	✓✓✓
Ammonia – cold gas	✓✓✓
Ammonia – hot gas	✓✓
Chlorides	
Ammonium chloride	✓✓✓
Calcium chloride solution	✓✓✓
Magnesium chloride	✓✓✓
Zinc chloride	✓✓✓
Gases	
Butane	X
Carbon dioxide (dry)	✓✓
Chloride (wet)	✓
Freon 12	✓✓
Freon 21	X
Freon 22	✓✓✓
Freon 134a	✓✓✓
Natural gas	X
Methane	X
Propane	X
Oils and Fuels	
ASTM No 1 oil	X
ASTM No 2 oil	X
ASTM No 3 oil	X
ASTM fuel A	X
ASTM fuel B	X
ASTM fuel C	X
Diesel oil	X
Diesel oil + RME (10%)	X
Mineral oil (low aromatic)	X

Key to Media Table	
✓✓✓	Excellent – Recommended
✓✓	Good – Minor to Moderate effects
✓	Fair – Moderate to severe effects
X	Poor – Not recommended
•	Insufficient data available
* Conditions Apply	Temperature or other limitation affecting polymer choice

These tables refer to room temperatures tests. For other conditions and additional media advices please refer to Water Kinetics for advice

