

## SPECIFICATIONS

Commercial

TriPlate

Triplate is widely used for the on-site welding of aluminium to steel, for example ships hulls to decks and oil rig superstructures to steel supports.

It consists of a steel base material and a corrosion resistant marine-grade aluminium alloy top layer with an intermediate layer of pure Aluminium to promote bonding.

The three Triplate layers are homogeneously bonded together by vacuum-explosion welding.

## MECHANICAL PROPERTIES

Shear Strength – Basemetal/Intelayer: > 55N/mm<sup>2</sup>

Tensile Strength (through thickness): > 75N/mm<sup>2</sup>

## SPECIFICATION / APPROVALS

Triplate meets MIL-J-24445A and is approved by Lloyd's Register of Shipping.

## CHEMICAL COMPOSITION

Base Material: Steel LRS Ship-Plate Grade A or St 52-3N

Interlayer: 99.5% Pure Aluminium – Alloy 1050A

Superlayer: Aluminium Alloy 5083 (AlMg4.5Mn)

## SIZE

Width: 25mm

Thickness: 34/35mm

Lengths: 3800mm

## USING TRIPLATE

During processing the temperature of the material **MUST NOT** be allowed to exceed 315 Centigrade.

DO NOT pre-heat the transition joint before welding.

Welding methods to be used are similar to those for the parent metals.

Ideally the aluminium weld should be made first after removal of the aluminium oxide film by wire-brushing, followed by de-greasing. Argon shielding gas is recommended. Small diameter wires are recommended (1.2mm). Welding methods include GTAW, GMAW, TIG, MIG and Synergic pulse MIG.

The steel weld is made using a coated electrode and GMAW, SMAW or FCAW. Small diameter electrodes are recommended (2.5mm).

When bending ensure that the minimum bend radius is at least ten times the strip width or thickness.

## CONTACT

Address:	Gould Alloys Ltd Markham Lane Markham Vale Chesterfield S44 5HS United Kingdom
Tel:	+44 (0) 1246 263300
Email:	<a href="mailto:sales@gouldalloys.co.uk">sales@gouldalloys.co.uk</a>
Web:	<a href="http://www.gouldalloys.co.uk">www.gouldalloys.co.uk</a>

## REVISION HISTORY

Datasheet Updated	07 November 2013
-------------------	------------------

## DISCLAIMER

This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.