



Certificate No : MD00/2768/0007/6b

SHOCKWAVE METALWORKING TECHNOLOGIES BV (SMT)
P.O. Box 50
NL 4715 ZH Rucphen
The Netherlands

has been approved as a manufacturer in accordance with the requirements of Lloyd's Register for :-

Aluminium / Steel Transition Joints

This approval is subject to compliance with the Rules for the Manufacture, Testing and Certification of Materials. The full details of the processes, products and grades to which this approval applies are given in the Appendix of this certificate.

Lloyd's Register is to be notified of any change that may affect the validity of this Certificate.

This Certificate is issued to the above manufacturer and is valid until the date given below.

Valid Until : 03 November 2021
Date of Issue : 11 January 2019

A handwritten signature in blue ink, appearing to read 'Clive Arnold', is written over a horizontal line.

Clive Arnold
Senior Metallurgical Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group



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Appendix 1

SHOCKWAVE METALWORKING TECHNOLOGIES BV (SMT)
P.O. Box 50
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Product	Grade	mm thickness Maximum
Transition Joint	TRIPLATE "S355"	34.00
1st. Layer	Steel S355J2G3	up to 20 mm thickness
2nd. Layer	Aluminium alloy 1050A	up to 8 mm thickness
3rd. Layer	Aluminium Alloy 5083	up to 6 mm thickness
Maximum bond temperature	300 Degrees Celcius	
Minimum shear strength	55 N/mm ²	
Minimum tensile strength	75 N/mm ²	
Minimum bend radius	10 times thickness	

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Appendix 2

SHOCKWAVE METALWORKING TECHNOLOGIES BV (SMT)

P.O. Box 50

NL 4715 ZH Rucphen

The Netherlands

Product	Grade	mm thickness Maximum
Transition Joint	TRIPLATE "GRADE A"	34.00
1st. Layer	Steel Grade A	up to 20 mm thickness
2nd. Layer	Aluminium alloy 1050A	up to 8 mm thickness
3rd. Layer	Aluminium Alloy 5083	up to 6 mm thickness
Maximum bond temperature	300 Degrees Celcius	
Minimum shear strength	55 N/mm ²	
Minimum tensile strength	75 N/mm ²	
Minimum bend radius	10 times thickness	

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