



Confirmation of Product Type Approval 02/SEP/2009

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

This is to certify that, pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 19/AUG/2014. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until 03/MAY/2014 subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

NEXANS BRASIL SA Model Name(s): AFITOX SMBC/SMAS

Presented to:

NEXANS BRASIL SA
PLASTICOS DO BRASIL S.A.
AV. CEL. PHIDIAS TAVORA, 100
RIO DE JANEIRO
Brazil

Intended Service:

General Power, Lighting and control Cables

Description:

Armored, flame retardant, fire resistant, halogen free, low smoke electric cables. Construction: stranded plain or tinned annealed copper conductor class 2 and 5. For class 2 non compacted stranded up to 6mm² and compacted stranded over 6 mm²; Mica tape and a thermoset compound HF XLPE insulation; Extruded or lapped inner covering; Metal protective covering with copper or galvanized steel braid; Thermoplastic compound type SHF1 outer sheathing; Cables: 1 x 4 mm² up to 1 x 300 mm²; 2 x 1,5 mm² up to 2 x 25 mm²; 3 x 1,5 mm² up to 3 x 240 mm²; 4 x 1,5 mm² up to 4 x 120 mm²; (4 up to 37 conductors) x 1,0 mm²; (5 up to 37 conductors) x 1,5 mm² and 2,5 mm²

Ratings:

0.6/1 kV; temperature class 85°C; maximum current carrying capacity as per 4-8-3/Table 6 of the Rules

Service Restrictions:

Unit Certification is not required for this product.

Comments:

Installation to be carried out in compliance with 4-8-4/21 of 2009 Steel Vessels Rules or 4-3-3/5 of 2008 MODU Rules, as applicable.

Notes / Documentation:

This Product Design Assessment (PDA) is valid only for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

Term of Validity:

This Design Assessment Certificate number 04-RJ429596I/1-PDA, dated

04/May/2009 will expire on 03/May/2014 or at an earlier date should there be alterations to the product's design or changes to the referenced ABS Rules and other specifications, which affect the product. Product use on or after 1 January 2010, will be subject to compliance with the ABS Rules or specifications in effect when the vessel, MODU or facility is contracted. The product's acceptability on board ABS-classed vessels or facilities is defined in the service restrictions of this certificate.

ABS Rules:

2009 Steel Vessel Rules 1-1-4/7.7, 4-8-3/9 - 2008 MODU Rules 4-3-4/13.1

National Standards:**International Standards:**

IEC 60092-350 (1998), 60092-351 (1983), 60092-353 (1995), 60092-359 (1999), 60331, 60332-3 (1992), 60754-1 (1994), 60754-2 (1991), 61034-2

Government Authority:**EUMED:****Others:**


ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.