



## *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 21/DEC/2010 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 MEP BC

**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:**

Armoured, flame retardant, halogen free, low smoke emission and single-core power cables. Construction: Plain or tinned copper wires and compact round stranded conductor. Semiconducting screen, thermoset compound HF HEPR insulation, semiconducting screen, plain or tinned copper tape screen, extruded inner covering, metal protective covering with plain or tinned copper wires braid, thermoplastic compound type SHF1 outer sheathing; Cables: 1x25mm# up to 1x500 mm# and 3,6/6 (7,2) kV up to 8,7/15 (17,5) kV; 1x35mm# up to 1x500 mm# and 12/20 (24) kV.

**Ratings:**

3,6/6 (7,2) up to 12/20 (24) kV; temperature class 90°C

**Service Restrictions:**

Unit Certification is not required for this product.

**Comments:**

Installation to be carried out in compliance with 4-8-4/21 of 2005 Steel Vessels Rules or 4-3-3/5 of 2001 MODU Rules, as applicable.

**Notes / Documentation:**

**Term of Validity:**

This Design Assessment Certificate number 05-RJ500926-PDA, dated 22/Dec/2005 will expire on 21/Dec/2010 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 2006, 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:**

2005 Steel Vessel Rules 1-1-4/3.7, 4-8-3/9 - 2001 MODU Rules 4-3-4/13.1

**National Standards:****International Standards:**IEC 60092-350, IEC 60092-351, IEC 60092-352, IEC 60092-354, IEC 60092-359,  
IEC 60332-3-22, IEC 60228, IEC 60754-1, IEC 61034-1, IEC 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.