



Confirmation of Type Approval

This is to certify that, pursuant to the Rules of American Bureau of Shipping (ABS), on 21/AUG/2007 the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) and a valid Product Design Assessment (PDA) for the below listed product, entitling the product to type approval. The validity of the Manufacturing Assessment is dependent on satisfactory audits as required by the Rules. The Product Design Assessment 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.

For Date of ABS Rules used for evaluation; Please refer to the ABS Rules below.

This Confirmation of Product Type Approval is valid as of the date shown above for the below listed 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 evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that the Client has full responsibility for continued compliance with the evaluation standard, whether the standard is an ABS Rule or a non-ABS Rule. As specified in the ABS Rules, Unit Certification may be required in addition to Product Type Approval. Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product.

General Cable Corp.

Model Name(s): C1Z-TP Series (Thermoplastic), C1Z-TSET Series (Thermoset),
C1Z-MOR Series (Thermoset),

Presented to:

General Cable Corp.
20 Forge Park
Franklin
Massachusetts 02038
United States

Intended Service:	Fiber Optic Signaling, Communication and Data transmission cables
Description:	Commodore: Unarmored Thermoplastic, Thermoset or MOR, Low Smoke, Zero-Halogen (LSZH), Heavy-Duty Breakout Cable, 2-48 Fibers
Ratings:	Operating temperature: -40°C to +70°C. Suitable for use in Class 1, Div.1 & Zone 1 hazardous areas.
Service Restrictions:	Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined
Comments:	IEC 60794-1-2-E1A Tensile Strength test. IEC 60794-1-2-E3 Crush test. IEC 60794-1-2-E4 Impact test. IEC 60794-1-2-E6 Repeated Bending test. IEC 60794-1-2-E7 Torsion test. IEC 60794-1-2-E10 Kink test. IEC 60794-1-2-E11 Cable & Cold Bend test. IEC 60332-3-22 Cat. A, Flammability test. IEC 60754-1&-2 Halogen Content test. IEC 61034-1 & 2 Smoke Density test. IEC 60754-2 Acidity of Gases test. IEC 60794-1-2-F1 Temp.Cycling
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 050HS472782/5-PDA, dated 20/Aug/2007 will expire on 06/Aug/2012 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 2008, 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: 2007 Steel Vessel Rules 1-1-4/7.7, 4-8-3/9.5 (i & ii) & 4-8-3/9.13 and 2006 MODU Rules 4-3-3/5.21

National Standards: Intertek / ETL Semco, Report No. 3118124CRT-001C-Rev.0 dated 18 July 2007 & Report No. 3118124CRT-001A-Rev.0 dated 10 July 2007

International Standards:

Government Authority:

EUMED:

Others:



Manager, 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.