

Type Approval Certificate



This is to certify that the undemoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. 93 863 - 86 HH

Company 3M E.C.C. Europa B.V.
Amsterdamseweg 61
3812 RR Amersfoort, NETHERLANDS

Product Description Heat shrinking hoses, thick-walled, for cables up to 1 kV

Type HDT and HDT-A : 12/3, 19/6, 30/8, 38/12, 48/15, 85/26, 115/38, 128/38 (HDT-A)

Environmental Category None

Technical Data / Range of Application Heat shrinking hoses with or without hot melt adhesive for ship's cables with rubber or plastic insulation up to 1kV.
Base material: Polyolefin, self-extinguishing
Color: Black
Operating temperature: -55°C up to 130°C (outer wall only)
Shrink temperature: 135°C min., 280°C max.

Type without adhesive: "HDT .. / ."
Type with adhesive: "HDT-A .. / ."
Shrink ratio : Up to 4 : 1

Test Standard Guidelines for the Performance of Type Approvals, Chapter 2, Edition 2003
IEC 60684-2

Documents Test reports: 3M no. D-1198-0/5790 dtd. 25.09.02, 3M no. 0929787/1, 0932651/2, 0933209/3, 0931024/4, 0832928/5, 0834046/6, 0833629/7, 0833429/8 dtd. 10.07.07, EPM no. 3333 and 3334 dated 20.09.82; Technical data sheets: HDT dtd. 13.09.06, HDT-A dtd. 30.01.96


Remarks Installation in accordance to processing instruction of manufacturer.

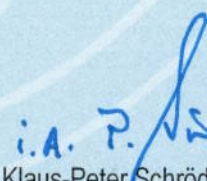
Valid until 2017-03-18
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Hamburg, 2014-04-24

Type Approval Symbol



Germanischer Lloyd


Marco Rinkel


Klaus-Peter Schröder