

## Deutsche Akkreditierungsstelle GmbH

### Annex to the Accreditation Certificate D-PL-11035-03-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 25.10.2017 to 24.10.2022

Date of issue: 28.11.2017

Holder of certificate:

**DMT GmbH & Co. KG**  
**Prüfstelle für Brandschutz**

at the locations:

**Tremoniastraße 13, 44137 Dortmund**  
**Hermann-Kemper-Straße 12a, 49762 Lathen**

Tests in the fields:

**Burning behavior of building materials and elements in mining (conveyor goodness), of petroleum and related products, of roofings, building materials, materials and components (incl. plastics) of rail vehicle construction (national and European), of plastics, furniture and components in shipbuilding according to IMO, of interior systems in automotive engineering, of personal protective equipment (PPE), of plastics, textiles and combustible materials, of mattresses and upholstered furnitures; fire resistance tests and continuous function tests on components, windows and doors and facade constructions; fire resistance tests on fire protection closures in rail vehicle constructions and components in shipbuilding; mechanical tests on gates, doors and smoke barriers; fire protection testing of cable systems with functional integrity; tests of battery systems on resistance against exposure to fire;**

**Tests on fire behavior of construction products, that do not require a declaration of a relevant harmonized technical specification (number 3, annex V, (EU) No. 305/2011)**

Abbreviations used: see last page

**The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue date. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.**

The tests are performed at the respectively marked sites.

Location of the laboratory Dortmund D;

Location of the laboratory Lathen L

**1 Site Dortmund (D)**

**1.1 Ignitability**

DIN EN ISO 12952-1 2011-01	Textiles - Assessment of the ignitability of bedding items - Part 1: Ignition source: smouldering cigarette
DIN EN ISO 12952-2 2011-01	Textiles - Assessment of the ignitability of bedding items - Part 2: Ignition source: match-flame equivalent
DIN EN ISO 20823 2003-10 EN ISO 20823 2003 ISO 20823 2003-08	Petroleum and related products - Determination of the flammability characteristics of fluids in contact with hot surfaces – Manifold ignition test
DIN EN 597-1 2016-03	Furniture - Assessment of the ignitability of mattresses and upholstered bed bases - Part 1: Ignition source smouldering cigarette
DIN EN 597-2 2016-03	Furniture - Assessment of the ignitability of mattresses and upholstered bed bases - Part 2: Ignition source: match flame equivalent
DIN EN 1021-1 2014-10	Furniture - Assessment of the ignitability of upholstered furniture - Part 1: Ignition source smouldering cigarette
DIN EN 1021-2 2014-10	Furniture - Assessment of the ignitability of upholstered furniture - Part 2: Ignition source match flame equivalent
DIN EN 1554 2012-10 EN 1554 2012	Conveyor belts - Drum friction testing
AS 1334-11 1988	Methods of testing conveyor and elevator belting - Determination of ignitability and maximum surface temperature of belting subjected to friction

## 1.2 Reaction to fire

<p>ISO 3795 1989-10</p>	<p>Road vehicles, and tractors and machinery for agriculture and forestry - Determination of burning behaviour of interior materials</p>
<p>ISO 5658-2 2006-09 + AMD 1 2011-11</p>	<p>Reaction to fire tests - Spread of flame - Part 2: Lateral spread on building and transport products in vertical configuration</p>
<p>ISO 6722 2006-08 paragraph 12</p>	<p>Road vehicles - 60 V and 600 v single-core cables - Dimensions, test methods and requirements - paragraph 12 Resistance to flame propagation</p>
<p>ISO 6722-1 2011-10 paragraph 5.22</p>	<p>Road vehicles - 60 V and 600 V single-core cables - Part 2: Dimensions, test methods and requirements for copper conductor cables - paragraph 5.22 Resistance to flame propagation</p>
<p>ISO 6722-2 2013-12 paragraph 5.22</p>	<p>Road vehicles - 60 V and 600 V single-core cables - Part 2: Dimensions, test methods and requirements for aluminium conductor cables - paragraph 5.22 Resistance to flame propagation</p>
<p>ISO 14572 2011-10 paragraph 5.21</p>	<p>Road vehicles - Round, sheathed, 60 V and 600 V screened and unscreened single- or multi-core cables – Test methods and requirements for basic- and high-performance cables; paragraph 5.21 Resistance to flame propagation</p>
<p>ISO / TS 15029-2 2012-12</p>	<p>Petroleum and related products - Determination of spray ignition characteristics of fire-resistant fluids - Part 2: Spray test - Stabilized flame heat release method</p>
<p>prEN 16989 2016-05</p>	<p>Railway applications - Fire protection on railway vehicles - Fire behaviour test for a complete seat</p>
<p>DIN EN ISO 340 2013-10  EN ISO 340 2013  ISO 340 2013-04</p>	<p>Conveyor belts - Laboratory scale flammability characteristics - Requirements and test method</p>

DIN EN ISO 6941 2004-05	Textile fabrics - Burning behaviour - Determination of ease of ignition of vertically oriented specimens
	<b>in conjunction with:</b>
	<i>DIN EN 13501-1 2010-01</i> <i>Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests</i>
DIN EN ISO 11925-2 2011-02	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
E DIN EN ISO 15029-2 2007-02	Petroleum and related products - Determination of spray ignition characteristics of fire-resistant fluids - Part 2: Spray test - Stabilised flame heat release spray method
DIN EN 12881-1 2015-10 EN 12881-1 2014	Conveyor belts - Fire simulation flammability testing - Part 1: Propane burner tests
DIN EN 12881-2 2009-10 EN 12881-2 2008	Conveyor belts - Fire simulation flammability testing - Part 2: Large scale fire test
E DIN EN 16989 2016-06	Railway applications - Fire protection on railway vehicles - Fire behavior test for a complete seat
DIN EN 45545-2 2016-02	Railway applications - Fire protection on railway vehicles - Part 2: Requirements for fire behaviour of materials and components
DIN 4102-1 1998-05	Fire behaviour of building materials and building components - Part 1: Building materials; concepts, requirements and tests
DIN 4102-15 1990-05	Fire behaviour of building materials and elements Part 15: "Brandschacht"
DIN 4102-16 2015-09	Fire behaviour of building materials and building components - Part 16: "Brandschacht" tests

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DIN 22118 1991-08	Conveyor belts with textile plies for use in coal mining; fire testing
DIN 53438-1 1984-06	Testing of combustible materials; response to ignition by a small flame; general data
DIN 53438-2 1984-06	Testing of combustible materials; response to ignition by a small flame - edge ignition
DIN 53438-3 1984-06	Testing of combustible materials; response to ignition by a small flame - surface ignition
DIN 54341 1988-01	Testing of seats in railways for public traffic - determination of burning behaviour with a paper pillow ignition source
DIN 54837 2007-12	Testing of materials, small components and component sections for rail vehicles - Determination of burning behaviour using a gas burner
DIN 5510-2 2009-05	Preventive fire protection in railway vehicles - Part 2: Fire behaviour and fire side effects of materials and parts - Classification, requirements and test methods (Annexes A, B, C and D, except D.3)
DIN 75200 1980-09	Determination of burning behaviour of interior materials in motor vehicles
DIN CEN/TS 45545-2 2009-07	Railway applications - Fire protection on railway vehicles - Part 2: Requirements for fire behaviour of materials and components
EU Directive 95/28/EG 1995-10	Annex IV: Test to determine the horizontal burning rate of materials  Annex VI: Test to determine the vertical burning rate of materials
ECE-R 118 - Rev. 1 / UN Regulation No. 118 - Rev. 1 2012-07	Uniform technical prescriptions concerning the burning behavior and/or the capability to repel fuel or lubricant of materials used in the construction of certain categories of motor vehicles

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<p>IMO 2010 FTP Code Part 5 / IMO-Resolution MSC. 307(88) 2010-12</p>	<p>Test for surface flammability (Test for surface materials and primary deck coverings)</p>
<p>IMO 2010 FTP Code Part 7 / IMO-Resolution MSC. 307(88) 2010-12</p>	<p>Test for vertically supported textiles and films</p>
<p>IMO 2010 FTP Code Part 8 / IMO-Resolution MSC. 307(88) 2010-12</p>	<p>Test for upholstered furniture</p>
<p>IMO 2010 FTP Code Part 9 / IMO-Resolution MSC. 307(88) 2010-12</p>	<p>Test for bedding components</p>
<p>AS 1334-10 1994</p>	<p>Methods of testing conveyor and elevator belting - Determination of ignitability and flame propagation characteristics of conveyor belting</p>
<p>AS 1334-12 1996-11</p>	<p>Methods of testing conveyor and elevator belting - Determination of combustion propagation characteristics of conveyor belting</p>
<p>AS 4606 2012</p>	<p>Grade S fire resistant and antistatic requirements for conveyor belting and conveyor accessories</p>

### 1.3 Flame persistence

DIN EN ISO 14935  
1998-12 Petroleum and related products - Determination of wick flame persistence of fire-resistant fluids

EN ISO 14935  
1998

ISO 14935  
1998-05

DIN EN ISO 15029-1  
2002-10 Petroleum and related products - Determination of spray ignition characteristics of fire-resistant fluids - Part 1: Spray flame persistence; Hollow-cone nozzle method

EN ISO 15029-1  
1999

ISO 15029-1  
1999-12

### 1.4 Toxicity

prEN 17084  
2017-01 Railway applications - Fire protection in railway vehicles - Toxicity test of materials and components

E DIN EN 17084  
2017-02 Railway applications - Fire protection in railway vehicles - Toxicity test of materials and components

IMO 2010 FTP Code Part 2 / Smoke and Toxicity test  
IMO-Resolution  
MSC. 307(88)  
2010-12

### 1.5 Oxygen index

DIN EN ISO 4589-2  
2017-08 Plastics - Determination of burning behaviour by oxygen index - Part 2: Ambient-temperature test

DIN 22117  
1988-02 Conveyor belts for coalmining; determination of the oxygen index

### 1.6 Smoke development behaviour

DIN EN ISO 5659-2  
2013-03 Plastics - Smoke generation - Part 2: Determination of optical density by a single-chamber test

## 1.7 Heat release

ISO 5660-1 2015-03	Reaction-to-fire tests - Heat release, smoke production and mass loss rate - Part 1: Heat release rate (cone calorimeter method) and smoke production rate (dynamic measurement)
ISO 5660-2 2002-12	Reaction-to-fire tests - Heat release, smoke production and mass loss rate - Part 2: Smoke production rate (dynamic measurement)
IMO 2010 FTP Code - Part 10, Appendix 2 / IMO-Resolution MSC. 307(88) 2010-12	Fire Test Procedures for Heat Release, Smoke Emission and Mass Loss Rate for Materials used for furniture and other Components of High-Speed Craft

## 1.8 Non-combustibility

DIN EN ISO 1182 2010-10	Reaction to fire tests for products - Non-combustibility test
EN ISO 1182 2010	
IMO 2010 FTP Code Part 1 / IMO-Resolution MSC. 307(88) 2010-12	Non-combustibility test

### each in conjunction with:

<i>DIN EN 13501-1 2010-01</i>	<i>Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests</i>
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**1.9 Fire-resistance**

ISO 834-1 1999-09	Fire-resistance tests - Elements of building construction - Part 1: General requirements
EN 1363-1 2012-07	Fire resistance tests - Part 1: General Requirements
EN 1363-2 1999-08	Fire resistance tests - Part 2: Alternative and additional procedures

**each in conjunction with:**

<i>DIN EN 13501-2 2016</i>	<i>Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services</i>
DIN EN 45545-3 2013-08	Railway applications - Fire protection on railway vehicles - Part 3: Fire resistance requirements for fire barriers
DIN CEN/TS 45545-3 2009-01	Railway applications - Fire protection on railway vehicles - Part 3: Fire resistance requirements for fire barriers
DIN 4102-8 2003-10	Fire behaviour of building materials and components - Part 8: Small scale test furnace
IMO 2010 FTP Code Part 3 / IMO-Resolution MSC. 307(88) 2010-12	Test for „A“, „B“ and „F“ class divisions
IMO FTP Code Part 11 / IMO-Resolution MSC. 307(88) 2010-12	Test for fire-resisting divisions of high-speed craft Except for: Load bearing fire-resisting divisions

**1.10 Circuit integrity maintenance of electric cable systems**

DIN 4102-12 1998-11	Fire behaviour of building materials and building components - Part 12: Circuit integrity maintenance of electric cable systems - requirements and testing
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### 1.11 Fire Behaviour of Building Materials and Building Components

DIN 4102-2 1977-09	Fire behaviour of Building Materials and Building Components - Building Components; Definitions, Requirements and Tests
DIN 4102-7 1998-07	Fire behaviour of building materials and building components - Part 7: Roofing; definitions, requirements and testing
DIN V 4102-23 2009-08	Fire behaviour of building materials and building components - Part 23: Roofs - Application rules for test results for roofs tested to DIN V ENV 1187 (here: test method 1), and DIN 4102-7
DIN SPEC 4102-23 2011-10	Fire behaviour of building materials and building components - Part 23: Roofs - Application rules for test results for roofs tested to DIN V ENV 1187 (here: test method 1), and DIN 4102-7

**in conjunction with:**

<i>DIN EN 13501-5 2016-12</i>	<i>Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests</i>
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DIN CEN/TS 1187 (DIN SPEC 91187) 2012-03	Test methods for external fire exposure to roofs (here: <i>test method 1</i> )
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DIN V ENV 1187 2006-10	Test methods for external fire exposure to roofs (here: <i>test method 1</i> ) ( <i>withdrawn standard</i> )
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### 1.12 Fire resistance of battery systems

ECE-R 100 - Rev. 2 / UN Regulation No. 100 - Rev. 2 Annex 8E 2013-07	Uniform provisions concerning the approval of vehicles with regard to specific requirements for the electric power train - Annex 8E Fire resistance
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### 1.13 Special tests on protective equipment

DIN EN 137  
2007-01                      Respiratory protective devices - Self-contained open-circuit  
compressed air breathing apparatus with full face mask -  
Requirements, testing, marking  
(here: *sections 6.11 and 7.4.13*)

### 1.14 Electrical resistance

ISO 284  
2012-12                      Conveyor belts - Electrical conductivity - Specification and test  
method

DIN EN ISO 284  
2013-04                      Conveyor belts - Electrical conductivity - Specification and test  
method

EN ISO 284  
2012

AS 1334-9  
1982                          Determination of electrical resistance of conveyor belting

### 1.15 Spontaneous ignition behaviour

DIN EN 15188  
2007-11                      Determination of the spontaneous ignition behaviour of dust  
accumulations  
EN 15188

## 2 Site Lathen (L)

### 2.1 Fire resistance

EN 1363-1  
2012-07 Fire resistance tests - Part 1: General Requirements

EN 1363-2  
1999-08 Fire resistance tests - Part 2: Alternative and additional procedures

#### in conjunction with:

*DIN EN 13501-2  
2016* *Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services*

DIN EN 1364-1  
2015-09 Fire resistance tests for non-loadbearing elements - Part 1: Walls

DIN EN 1364-3  
2014-05 Fire resistance tests for non-loadbearing elements - Part 3: Curtain walling - Full configuration (complete assembly)

DIN EN 1364-4  
2014-05 Fire resistance tests for non-loadbearing elements - Part 4: Curtain walling - Part configuration

DIN EN 1634-1  
2014-03 Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows

DIN EN 14600  
2006-03 Doorsets and openable windows with fire resisting and/ or smoke control characteristics - Requirements and classification

EN 14600  
2005

DIN EN 16034  
2014-12 Pedestrian doorsets, industrial, commercial, garage doors and openable windows - Product standard, performance characteristics - Fire resistance and/or smoke control characteristics

DIN EN 45545-3  
2013-08 Railway applications - Fire protection on railway vehicles - Part 3: Fire resistance requirements for fire barriers

DIN 4102-2 1977-09	Fire Behaviour of Building Materials and Building Components - Building Components; Definitions, Requirements and Tests
UIC 564-2 Abschnitt 4 1991-01	Regulations relating to fire protection and firefighting measures in passenger carrying railway vehicles or assimilated vehicles used on international services - Section 4: Fire prevention - Special regulations
IMO 2010 FTP Code Part 3 / IMO-Resolution MSC. 307(88) 2010-12	Test for „A“, „B“ and „F“ class divisions
IMO 2010 FTP Code Part 4 / IMO-Resolution MSC. 307(88) 2010-12	Test for fire door control systems
IMO FTP Code Part 11 / IMO-Resolution MSC. 307(88) 2010-12	Test for fire-resisting divisions of high-speed craft (Except for: <i>Load bearing fire-resisting divisions</i> )

## **2.2 Smoke control characteristics**

DIN EN 1634-3 2005-01 EN 1634-3 2004	Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 3: Smoke control test for door and shutter assemblies
DIN 18095-1 1988-10	Smoke control doors - concepts and requirements
DIN 18095-1/A1 2009-05	Smoke control doors - concepts and requirements - Amendment A1
DIN 18095-2 1991-03	Smoke control doors - type testing for durability and leakage
DIN 18095-3 1999-06	Smoke control shutters - Part 3: Application of test results

**In conjunction with:**

*DIN EN 13501-2  
2016*

Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services

**2.3 Durability of performance and mechanical aspects**

DIN EN 1191  
2013-04 Windows and doors - Resistance to repeated opening and closing - Test method

EN 1191  
2012

DIN EN 12605  
2000-08 Industrial, commercial and garage doors and gates - Mechanical aspects - Test methods

EN 12605  
2000

- 5.1.1 Evidence of operability of the door
- 5.1.2 Evidence of activities against unintentional disengagement or derailment
- 5.1.4 Evidence of activities against uncontrolled movements of vertically operating doors
- 5.1.5 Evidence of forces required for manual operation
- 5.1.6 Evidence of force and velocity for self-closing doors
- 5.2 Test of durability

DIN 4102-18  
1991-03 Fire behaviour of building materials and components; fire barriers, verification of automatic closure (continuous performance test)

**in conjunction with:**

*DIN EN 13501-2  
2016*

*Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services*

**3 Tests on burning behavior of construction products, that do not require a declaration of a relevant harmonized technical specification (number 3, annex V, (EU) No. 305/2011)**

**Reaction to fire**

EN ISO 1182  
2010-05                      Reaction to fire tests for products - Non-combustibility test                      **D**

EN ISO 11925-2  
2010-11                      Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test                      **D**

**in conjunction with**

*EN 13501-1+A1  
2009-01                      Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests*

*EN 13501-6  
2014-03                      Fire classification of construction products and building elements - Part 6: Classification using data from reaction to fire tests on electric cables*

**Resistance to fire**

EN 1364-1  
2015-07                      Fire resistance tests for non-loadbearing elements - Part 1: Walls                      **D, L**

EN 1364-2  
1999-08                      Fire resistance tests on non-loadbearing elements - Part 2: Ceilings                      **D**

EN 1364-3  
2014                      Fire resistance tests for non-loadbearing elements - Part 3: Curtain walling - Full configuration (complete assembly)                      **L**

EN 1364-4  
2014                      Fire resistance tests for non-loadbearing elements - Part 4: Curtain walling - Part configuration                      **L**

EN 1366-7  
2004-06                      Fire resistance tests for service installations - Part 7: Conveyor systems and their closures                      **L**

EN 1634-1  
2014

Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows

**L**

EN 1634-3  
2004-10

Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 3: Smoke control test for door and shutter assemblies

**L**

**in conjunction with:**

<i>EN 13501-2+A1 2009-09</i>	<i>Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services</i>
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**External fire performance**

CEN/TS 1187  
2012-01

Test methods for external fire exposure to roofs (here: *test method 1*)

**D**

**in conjunction with:**

<i>EN 13501-5+A1 2009-09</i>	<i>Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests</i>
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The requirements for a testing laboratory are to be fulfilled according to article 43 of the Construction Products Regulation. Testing methods, which are necessary for determining the product type and cannot be executed by the holder of the certificate, are described in the list of subcontractors.

**Abbreviations used:**

AS	Australian Standard
IMO FTP	International Maritime Organization - Fire Test Procedures
UIC	Union Internationale des Chemins de Fer (International Union of Railways; based in Paris)