

DIN EN 45545-2:2023-12 (E)

Railway applications - Fire protection on railway vehicles - Part 2: Requirements for fire behaviour of materials and components (includes Amendment A1:2023)

Contents		Page
European foreword		4
Introduction		9
1	Scope	10
2	Normative references	10
3	Terms and definitions	12
4	Requirements	12
4.1	Essential fire safety objectives	12
4.2	General	12
4.3	Grouping rules	14
4.3.1	General	14
4.3.2	Rule 1	14
4.3.3	Rule 2	14
4.3.4	Rule 3	15
4.4	Listed products	17
4.5	Non-listed products	23
4.6	Refurbishment and maintenance requirements	24
4.6.1	General	24
4.6.2	Requirements for refurbishment of passenger seats	24
4.7	Products to be approved on functional necessity	25
4.8	Set of material requirements	25
5	Test properties	33
5.1	Summary of test methods	33
5.2	Modifications on test methods used in 5.1	38
5.2.1	Definitions	38
5.2.2	Furnishing products burning behaviour	38
5.3	Testing rules	39
5.3.1	Products or assemblies	39
5.3.2	Hoses, pipes or elastomeric profiles	39
5.3.3	Mastics	39
5.3.4	Substrates for surface products	39
5.3.5	Test specimen preparation for upholstery products	40
5.3.6	Linear cable containment products	40
5.3.7	Fire integrity testing	41
5.3.8	Assessment for burning droplets / particles	41
6	Evaluation of conformity	41
Annex A (normative) Protocol for test specimen preparation in standard tests		42
A.1	Protocol for specimen preparation for tests according to EN ISO 5659-2 and ISO 5660-1 ..	42
A.2	Protocol for specimen preparation of upholstered furniture assembled products for tests according to EN ISO 5659-2 and ISO 5660-1	42
A.2.1	Scope and field of application	42
A.2.2	Preparation of test specimens	42
A.3	Protocol for test specimen preparation for flame spread testing	43

A.3.1	Scope and field of application	43
A.3.2	Test specimen preparation	43
Annex B (informative) Product classification guidance		44
B.1	Introduction	44
B.2	Multiple product classification	44
B.3	Test requirement set grouped for multiple product classifications	45
B.3.1	General	45
B.3.2	Test procedure Group A - predominately surfaces	46
B.3.3	Test procedure Group B - predominately external surfaces	46
B.3.4	Test procedure Group C - cables	46
B.3.5	Test procedure Group D - typically electrical, electronic items, seals and hoses	47
B.3.6	Test procedure Group E - internal and external light diffusers	47
B.3.7	Test procedure Group F - Floors and upward facing horizontal surfaces	47
B.3.8	Test procedure Group G - typically upholstery, loose upholstery, staff seats	48
Bibliography		50