

Regulation UNECE R118

Proposal for flooring

GRSG-BMFE-10
2020, September 2 - 3



- Strictly Confidential -



R118 : proposal for flooring

□ Typical results of burning test (ECE R118 annex 8 / ISO 6941)

Dimensions : 560 * 170 mm
Dimensions :

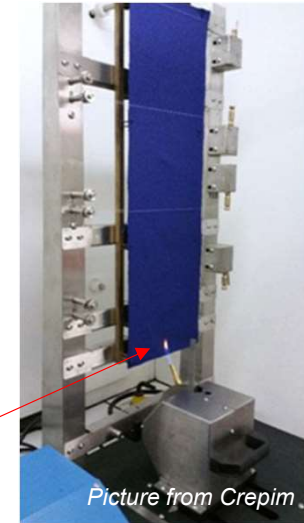
Epaisseur : 2,5 mm
Thickness

Echantillons Samples	Durée de combustion Burning time (s)			Distance brûlée Length flame travelled (mm)			Vitesse de combustion Burning rate (mm/min)			Vitesse de combustion Burning rate (mm/min)
	t1	t2	t3	d1	d2	d3	V1	V2	V3	
1	0	-	-	0	-	-	0	-	-	0
2	0	-	-	0	-	-	0	-	-	0
3	0	-	-	0	-	-	0	-	-	0
4	0	-	-	0	-	-	0	-	-	0
5	0	-	-	0	-	-	0	-	-	0
6	0	-	-	0	-	-	0	-	-	0

Results for floor covering (PVC) :

- Burning time : **0 s**
- Burning length : **0 mm**

small ignition source



Origin of fire	Source of ignition	Test method
Low heat source : cigarette, match,...	Small ignition source (bunsen burner)	ECE R118 Annex 6 & 8
Already developed fire (ex. from engine, tires...)	Several small flames + radiative heat source	X

Importance to include a flame spread test in R118



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R118 : proposal for flooring

Flame spread test ISO 9239-1

- International standard ISO
- Similar US test method : ASTM E 648
- Already used for railway (EN45545, NFPA 130, BS6853, DIN5510) and contract applications
- Inert proposed substrate : mineral fiber cement board (ASTM E 648) or aluminium plate (EN45545)

Proposal of requirement :

- **Flame spread** parameter = critical heat flux : **CHF > 4,5 kW/m²**

(Equivalent to "HL1" classification in railway standard EN45545, or "Cfl" in contract applications)

- *Optionally*, a **smoke** parameter (TLA or *total light attenuation*) can be measured in this ISO 9239-1.
Proposed requirement : **TLA (smoke) < 750 %.min**

(Equivalent to "s1" in contract applications)



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