Regulation UNECE R118
Proposal for flooring

GRSG-BMFE-10
2020, September 2 - 3
R118 : proposal for flooring

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

<table>
<thead>
<tr>
<th>Origin of fire</th>
<th>Source of ignition</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low heat source :</td>
<td>Small ignition source (bunsen burner)</td>
<td>ECE R118 Annex 6 &amp; 8</td>
</tr>
<tr>
<td>cigarette, match,...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Already developed fire</td>
<td>Several small flames + radiative heat source</td>
<td>X</td>
</tr>
<tr>
<td>(ex. from engine, tires...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results for floor covering (PVC) :
- Burning time : 0 s
- Burning length : 0 mm

Small ignition source

Importance to include a flame spread test in R118
**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)