

Table 1 — Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 ^a and	$\Delta T \leq 30\text{ °C}$; and $\Delta m \leq 50\%$; and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2,0\text{ MJ/kg}$ ^a and $PCS \leq 2,0\text{ MJ/kg}$ ^{b c} and $PCS \leq 1,4\text{ MJ/m}^2$ ^d and $PCS \leq 2,0\text{ MJ/kg}$ ^e	-
A2	EN ISO 1182 ^a or	$\Delta T \leq 50\text{ °C}$; and $\Delta m \leq 50\%$; and $t_f \leq 20\text{ s}$	-
	EN ISO 1716 and	$PCS \leq 3,0\text{ MJ/kg}$ ^a and $PCS \leq 4,0\text{ MJ/m}^2$ ^b and $PCS \leq 4,0\text{ MJ/m}^2$ ^d and $PCS \leq 3,0\text{ MJ/kg}$ ^e	-
	EN 13823	$FIGRA \leq 120\text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7,5\text{ MJ}$	Smoke production ^f and Flaming droplets/particles ^g
B	EN 13823 and	$FIGRA \leq 120\text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7,5\text{ MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ^f : Exposure = 30 s	$F_s \leq 150\text{ mm}$ within 60 s	
C	EN 13823 and	$FIGRA \leq 250\text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15\text{ MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ^f : Exposure = 30 s	$F_s \leq 150\text{ mm}$ within 60 s	
D	EN 13823 and	$FIGRA \leq 750\text{ W/s}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ^f : Exposure = 30 s	$F_s \leq 150\text{ mm}$ within 60 s	
E	EN ISO 11925-2 ^f : Exposure = 15 s	$F_s \leq 150\text{ mm}$ within 20 s	Flaming droplets/particles ^h
F	No performance determined		

^a For homogeneous products and substantial components of non-homogeneous products.
^b For any external non-substantial component of non-homogeneous products.
^c Alternatively, any external non-substantial component having a $PCS \leq 2,0\text{ MJ/m}^2$, provided that the product satisfies the following criteria of EN 13823: $FIGRA \leq 20\text{ W/s}$, and $LFS < \text{edge of specimen}$, and $THR_{600s} \leq 4,0\text{ MJ}$, and s1, and d0.
^d For any internal non-substantial component of non-homogeneous products.
^e For the product as a whole.
^f In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.
s1 = $SMOGR \leq 30\text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 50\text{ m}^2$; s2 = $SMOGR \leq 180\text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 200\text{ m}^2$; s3 = not s1 or s2
^g d0 = No flaming droplets/ particles in EN 13823 within 600 s;
d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;
d2 = not d0 or d1.
Ignition of the paper in EN ISO 11925-2 results in a d2 classification.
^h Pass = no ignition of the paper (no classification);
Fail = ignition of the paper (d2 classification).
ⁱ Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.