



PARAMETERS, TESTS AND
ADDITIONAL ASSESSMENTS

Technical information: PARAMETERS AND TEST

Table of test parameters and performance limits for cable fire-reaction classes.

PARAMETERS AND TESTS	
B2ca EN 60332-1-2 + EN 50399	<p>FS \leq 1.5 m THR1200s \leq 15 MJ Peak HRR \leq 30 Kw FIGRA \leq 150 Ws-1 H \leq 425 mm</p>
Cca EN 60332-1-2 + EN 50399	<p>FS \leq 2.0 m THR1200s \leq 30 MJ Peak HRR \leq 60 Kw FIGRA \leq 300 Ws-1 H \leq 425 mm</p>
Dca EN 60332-1-2 + EN 50399	<p>THR1200s \leq 70 MJ Peak HRR \leq 400 Kw FIGRA \leq 1300 Ws-1 H \leq 425 mm</p>
Eca EN 60332-1-2	<p>H \leq 425 mm</p>

Technical information: PARAMETERS AND TEST

Table of additional criteria for cable classification based on smoke, flaming droplets and gas acidity.

ADDITIONAL ASSESSMENTS	
<p>s - smoke opacity EN 50399 + EN 61034-2 (solo s1a, s1b)</p>	<p>s1 = $TSP_{1200s} \leq 50 \text{ m}^2$ e Peak SPR $\leq 0.25 \text{ m}^2/\text{s}$</p> <p>s1a = minimum transmittance 80%</p> <p>s1b = minimum transmittance between 60% and 80%</p> <p>s2 = $TSP_{1200s} \leq 400 \text{ m}^2$ e Peak SPR $\leq 1.5 \text{ m}^2/\text{s}$</p> <p>s3 = does not meet the requirements for s1 or s2, or the performance is not declared</p>
<p>d - Flaming droplets/particles EN 50299</p>	<p>d0 = no flaming droplets or particles are observed within 1200 s of the test</p> <p>d1 = the combustion of any flaming droplets or particles does not persist for more than 10s within the 1200 s test duration</p> <p>d2 = does not meet the requirements for d0 or d1, or the performance is not declared</p>
<p>a - Acidity of combustion gases EN 60754-2</p>	<p>a1 = conductivity $< 2.5 \mu\text{S}/\text{mm}$ e Ph > 4.3</p> <p>a2 = conductivity $< 10 \mu\text{S}/\text{mm}$ e Ph > 4.3</p> <p>a3 = does not meet the requirements for a1 or a2, or the performance is not declared</p>

LEGEND:

- H = burning height (in mm)
- FS = length of the burnt area (in meters)
- THR1200s = total heat released during the entire test (in MJ)
- Peak HRR = maximum value of the Heat Release Rate curve over the entire test (in kW)
- FIGRA = Fire Growth Rate Index (in W/s)
- TSP1200s = total smoke production during the test (in m^2)
- Peak SPR = maximum value of the Smoke Production Rate curve over the entire test (in m^2/s)