

Typical properties of fabric ducting materials

Characteristic	Value	Unit	Tolerance	Comments
Weight	260	g/m ²	±5%	
Thickness	0.45	mm	±10%	
Tensile strength (warp/weft)	1,400/1,900	N/50mm	±10%	
Elongation (at first break)	30/35	%		
Resistance to tearing (warp/weft)	140/110	N	±10%	
Minimum air permeability	20	m ³ /m ² /h		Air permeability at 120 Pa
Retention grade	F7			Equivalent filter class
Shrinkage in wash	<5	%		
Water absorption	0.4	%		
Operating temperature maximum/minimum	+60 / -45	°C		

Acceptable fire tests and corresponding acceptance criteria

Test category	Fire risk	Applicable fire test standards	Acceptance criteria
A	Toxicity emission	• EN 45545-2	CIT < 0.75
		• ISO 5659-2	CIT < 0.75
B	Smoke density	• EN 13501-1 • EN 14041 • ISO 9239-1	Smoke classification to be s1 rating.
		• ASTM E662 • NFPA 258	Smoke density, $D_{s,max}$ < 450
		• ISO 5659-2	Smoke density, $D_{s,max}$ < 150
C	Ease of ignition / Fire spread	• EN 13501-1 • EN 14041 • ISO 9239-1	<u>Sprinklered premises</u> • Sleeping occupancy: Class C _{fi} or better • Non-sleeping occupancy: Class D _{fi} or better
		• ASTM E648 • NFPA 253	<u>Unsprinklered premises</u> • Sleeping occupancy: Class B _{fi} or better • Non-sleeping occupancy: Class C _{fi} or better Critical radiant flux (CRF) > 0.45 W/cm ²