COFRA BORN TO WORK

TECHNICAL SHEET

FROZEN - padded trousers

Description

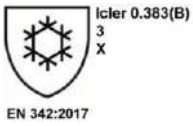
- *3M™ SCOTCHLITE™ Reflective Material reflex inserts - 8910 Silver Fabric,*
- adjustable waist,
- bottom opening with zip,
- double back pocket with flap,
- knee and leg ergonomic design,
- knee patches,
- reinforced leg end,
- right side pocket,
- thermo welded,
- wide back zipped pocket,
- YKK® zip

Maintenance

Maximum wash temperature: 30°C; Do not bleach; Do not dry clean; Do not dry in a tumble dryer; Do not iron.

Item	
	V008-0-00 Khaki/black
	V008-0-01 Grey/black
	V008-0-02 Navy/black
	V008-0-03 Clay brown/black
	V008-0-04 Anthracite/black
	V008-0-05 Black/black

Standards EN ISO 13688:2013



(with parka ICESTORM)

Sizes	44 – 64

SAFETY TECHNICAL SPECIFICATIONS

	Test method	description	Cofra result	minimum requirement / range
Background and colour insert fabric	EN ISO 1833-1977, SECTIONE 10	Composition : polyester Polyurethane coated	100%	
	EN ISO 12127:1996	Weight per unit area	200 g/m^2	
	EN ISO 13688:2013 4.2 (EN 1413)	The pH's determination from the watery extract	pH: 5.6	3,5≤PH≤9,5
	EN ISO 13688:2013 4.2 (EN 14362-1:2012)	Search of the aromatic and carcinogenic amines	Not recording	≤30 ppm
	EN ISO 13688:2013 5.3 (EN ISO 6630 / ISO5077)	Dimensional change to washing (4N/40°C)	warp: -0.5% weft: 0.0%	± 3 %
	ISO 105-X12	Colour fastness to rubbing	dry: 4-5 wet; 4-5	≥3

	ISO 105-C06	Colour fastness to Laundering at 60°C			
		Colour change	4-5		≥3
		Staining:			
		diacetate	4-5		
		cotton	4-5		
		nylon	4		
		polyester	4-5		
		acrylic	4-5		
		wool	4-5		
	ISO 105 E04	Colour fastness to perspiration	Acid	Alkaline	
		Colour change	4-5	4-5	≥3
		Staining:			
		diacetate	4-5	4-5	
		cotton	4-5	4-5	
		nylon	4-5	4-5	
		polyester	4-5	4-5	
		acrylic	4-5	4-5	
		wool	4-5	4-5	
	ISO 105-B02	Colour fastness to light -Test with a xenon arc lamp Colour change	4		≥5
	EN 343:2003+A1:2007 4.2 (EN 20811)	Water penetration resistance - Wp [Pa] (before each pretreatment)	>8000 Pa		*CLASS 1 Wp ≥ 8000 Pa* *CLASS 2 no test required* *CLASS 3 no test required*
	EN 343:2003+A1:2007 4.2 (EN 20811)	Water penetration resistance - Wp [Pa] (after each pretreatment)	Class 3 Wp> 13000 Pa		*CLASS 1 no test required* *CLASS 2 Wp ≥ 8.000 Pa* *CLASS 3 Wp ≥ 13.000 Pa*
	EN 343:2003+A1:2007 4.3 (EN 31092)	Water vapour resistance R_{et} [m^2 Pa/W]	Class 3 R_{et} = 10.6 [m^2 Pa/W]		*CLASS 1 $R_{et} > 40$* *CLASS 2 $20 < R_{et} < 40$* *CLASS 3 $R_{et} < 20$*
	EN 343:2003+A1:2007 4.4 (EN ISO 1421)	Tensile strength	warp: 1419 N weft: 1052 N		>450 N
	EN 343:2003+A1:2007 4.5 (EN ISO 4674)	Tear resistance of coated or laminated fabrics	warp: 252.78 N weft: 196.52 N		>25 N
Reflex *3M™ Scotchlite™ 8910 Silver Fabric*	EN ISO 20471:2013/A1:2016 6.1	Retro reflective performance requirements of new material	PASS		
	EN ISO 20471:2013/A1:2016 6.2	Requirements of retro reflective performance after tests for abrasion, flexion, folding at cold temperature, temperature variations, washing (50 cycles) and rain influence.	PASS		*R´ ≥ 100 cd/(lx m²)*

Lining		Composition: polyester	100%	
Padding		Composition: polyester	100%	
		Weight per unit area	160 g/m^2	
FROZEN	EN 343:2003+A1:2007 4.2 (EN 20811)	Seams: Water penetration resistance Wp - [Pa]	>19613 Pa (Class 3)	*CLASS 1 no test required* *CLASS 2 Wp ≥ 8.000 Pa* *CLASS 3 Wp ≥ 13.000 Pa*
	EN 343:2003+A1:2007 4.3 (EN 31092)	Water vapour resistance R_{et} [m^2 Pa/W]	Ret=88.5(Classe 1)	*CLASS 1* $R_{et} > 40$ *CLASS 2* $20 < R_{et} < 40$ *CLASS 3* $R_{et} < 20$
	EN 343:2003+A1:2007 4.7 (EN ISO 13935-2)	Determination of maximum force to seam rupture using the grab method	270 N	≥ 225 N
	EN 342:2017 6.3 (UNI EN ISO 15831)	Measurement of thermal insulation by means of a thermal manikin (after 5 cycles wash a 30°C)	I_{cler} 0.383(B) m^{2}K/W	

Table B: resultant effective thermal insulation of clothing I_{ker} and ambient temperature conditions for heat balance at different activity levels and duration of exposure

thermic insulation I_{ker}	moving activity											
	–		–		light		light		medium		medium	
	75 W/m^2		75 W/m^2		115 W/m^2		115 W/m^2		170 W/m^2		170 W/m^2	
[m^2 K/W]	air speed 0,4 m/s		air speed 3 m/s		air speed 0,4 m/s		air speed 3 m/s		air speed 0,4 m/s		air speed 3 m/s	
	8h	1h	8h	1h	8h	1h	8h	1h	8h	1h	8h	1h
0,265	13	0	19	7	3	–12	9	–3	–12	–28	–2	–16
0,310	10	–4	17	3	–2	–18	6	–8	–18	–36	–7	–22
0.383	**5,4**	**–11,3**	**13,4**	**–2,5**	**–8,4**	**–27,1**	**0,5**	**–15,3**	**–28,1**	**–47,9**	**–15,2**	**–32,0**
0.390	5	–12	13	–3	–9	–28	0	–16	–29	–49	–16	–33
0,470	0	–20	7	–9	–17	–38	–6	–24	–40	–60	–24	–43
0,500	–2,1	–22,6	5,7	–11,1	–20	–41	–8,1	–26,6	–43,8	–64,7	–27,4	–46,8
0.540	–5	–26	4	–14	–24	–45	–11	–30	–49	–71	–32	–52
0.620	–10	–32	0	–20	–31	–55	–17	–38	–60	–84	–40	–61

EN 342:2017 5.2 (UNI EN ISO 9237)	Determination of the permeability of fabrics to air	AP <1 mm/s Class 3	*CLASS* *1* *2* *3*	*AP (mm/s)* *AP >100* *5<AP<100* *AP<5*