

art. G014 – HYDRONIT – Cold Protection

Features

- New generation of soft shell gloves made of innovative COFRA-TEX membrane
- Unique glove of this kind thanks to thermo-regulating COFRA-TEX membrane which together with the special waterproofness glove construction, is capable to grant a new solution to the most demanding workers
- New technology drawn from sports to PPE world
- Lining made of three layers granting flexibility, waterproofness and heat protection:
 - the softshell fabric grants flexibility
 - internal COFRA-TEX membrane makes the gloves waterproof, windproof and breathable at the same time
 - the soft internal pile increases heat sensation
- Nitrile foam coating to grant oil protection and at the same time excellent flexibility and breathability
- Long neoprene cuff with velcro closure covering the entire sleeve to avoid the entrance of cold air and water
- Suitable for outdoor environments in windy and rainy areas
- Excellent for work environments with temperature up to -30°C
- COFRA-TEX membrane keeps internal microclimate which remains unchanged if there is wind (wind chill) and humidity
- Membrane certified values, palm breathability : 3.0 mg/cm² h



**SOFTSHELL WITH
WATERPROOF AND WINDPROOF
COFRA-TEX MEMBRANE**



Palm

Nitrile foam

Lining

Softshell with COFRA-TEX membrane

Cuff

Neoprene

Colour

turquoise / black

Sizes

8 – 11 (M-XXL)

Application

airport workers, naval workers, building and construction, stock handling winter use, street cleaners

Packaging

code	quantity	
G014-D100	1 dozen	12 single packed gloves
G014-K100	6 dozen	72 single packed gloves

Standards



**RECOMMENDED WITH
TEMPERATURE UP TO
-30 °C**



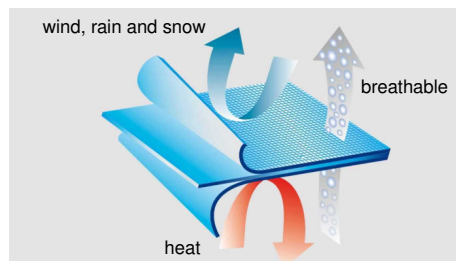
**LONG NEOPRENE
CUFF**



**BREATHABLE
NITRILE FOAM**



SOFTSHELL WITH COFRA-TEX MEMBRANE



COFRAtex
WATERPROOF

COFRA-TEX is a TPU membrane (Thermoplastic Polyurethane): elastic in 4 directions, super light, ultra-thin, resistant to oils and greases, with great properties of breathability and water resistance. Laboratory tests proved good tear and traction resistance. The gloves with **COFRA-TEX** membrane guarantee higher performances than waterproof polyurethane-coated gloves in terms of both waterproofness and breathability

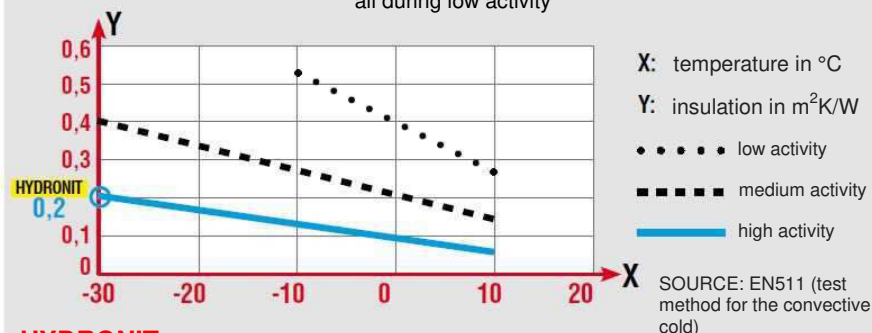
WIND CHILL is a parameter that allows measurement of the discomfort due to cold when this is worsened by wind effect. The wind significantly increases heat loss from our body, that exposed to harsh temperatures risks frostbite.

Here below a table showing the incidence in different extreme conditions and the temperature felt by the human body (WIND CHILL):

	10 Km/h	20 Km/h	30 Km/h	40 Km/h	50 Km/h
5 °C	3	1	0	-1	-1
0 °C	-3	-5	-6	-7	-8
-5 °C	-9	-12	-13	-14	-15
-10 °C	-15	-18	-19	-21	-22
-15 °C	-21	-24	-26	-27	-29
-20 °C	-27	-30	-33	-34	-35
-25 °C	-33	-37	-39	-41	-42

GLOVE INSULATION REQUIREMENT IN 3 CONDITIONS OF PHYSICAL ACTIVITY (in conditions of nearly total lack of wind ~2 km/h)

Glove insulation requirements increase as the temperature decreases, above all during low activity



HYDRONIT:

- Index of thermal insulation from convective cold - I_{TR} : 0,20 m²K/W
- Index of resistance to contact cold - R : 0,076 m²K/W

HYDRONIT glove provides protection for high-activity works up to -30°C, unlike the other gloves which, even with the same index but in presence of wind and more humidity, reduce considerably protection performances.

EVALUATION OF GLOVE AT SEVERE WORKING CONDITIONS AT -15 °C AND INDEX OF THERMAL INSULATION CAUSED BY CONVECTIVE COLD I_{TR} : 0,20 m²K/W

EXTERNAL TEMPERATURE	WIND	WIND-CHILL (perceivable temperature)	EVALUATION	
			HYDRONIT	Winter knitted gloves
-15 °C	2 Km/h	-15 °C	EXCELLENT	EXCELLENT
-15 °C	10 Km/h	-21 °C	EXCELLENT	MEDIUM
-15 °C	20 Km/h	-24 °C	EXCELLENT	BAD
-15 °C	30 Km/h	-26 °C	GOOD	BAD

In order to evaluate the glove it is necessary to take into consideration that also the relative air humidity.

SAFETY TECHNICAL SPECIFICATIONS

Technical features	test method	description	Cofra result	minimum requirement / range
	EN 340:2003 par 4.1 (EN 1413)	pH determination - palm, back, cuff	7,05	3.5 < pH < 9.5
	EN 340:2003 par 4.1 (EN 1413)	pH determination - lining	6,85	3.5 < pH < 9.5
	EN 340:2003 par 4.2 (prEN 14362-1)	Carcinogenic and aromatic amines	0 [ppm]	< 30 [ppm]
	EN 388:2003 par 6.1	Abrasion resistance	2	1 ÷ 4
	EN 388:2003 par 6.2	Blade cut resistance	1	1 ÷ 5
	EN 388:2003 par 6.3	Tear resistance	4	1 ÷ 4
	EN 388:2003 par 6.4	Puncture resistance	2	1 ÷ 4
	EN 511/06 sec 4.5	Convective cold	2	1 ÷ 4
	EN 511/06 sec 4.6 (ISO 5085-1)	Contact cold	2	1 ÷ 4
	EN 511/06 sec 4.3 (ISO 15383)	Waterproofness	1	0 ÷ 1
	EN ISO 20344:2011	Determination of water vapor permeability	3,0 mg/cm² h	/