

ISO 16976-5:2023-03 (E)

Respiratory protective devices - Human factors - Part 5: Thermal effects

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms, definitions and abbreviations	1
3.1	Terms and definitions	1
3.2	Abbreviated terms and symbols	2
4	Local thermal effects	2
4.1	General	2
4.2	Effects on skin contact by the RPD	2
4.3	Hot surfaces	3
4.4	Cold surfaces	4
4.5	Effects of inhaled breathable gas to, airways and lung tissues	8
4.5.1	General mask function	8
4.5.2	Effects caused by hot breathable gas	8
4.5.3	Effect caused by cold breathable gas	9
5	Effects on whole body heat balance	10
5.1	Respiratory heat exchange	10
5.2	Skin surface heat exchange	11
5.3	Increased metabolic rate	11
5.4	Thermoneutral conditions	12
5.5	Heat stress	12
5.6	Cold stress	13
Bibliography		15