

# DIN EN 1073-1:2016-09 (E)

Protective clothing against solid airborne partic les including radioactive contamination - Part 1: Requirements and test methods for compressed air line ventilated protective clothing, protecting the body and the respiratory tract (includes Corrigendum :2016)

---

<b>Contents</b>		<b>Page</b>
	European foreword .....	4
1	Scope .....	6
2	Normative references .....	6
3	Terms and definitions .....	7
4	Requirements .....	8
4.1	Design .....	8
4.2	Materials .....	8
4.3	Nominal protection factor .....	9
4.4	Seam strength, Joins and Assemblages .....	10
4.4.1	Seam strength .....	10
4.4.2	Detachable joins .....	10
4.5	Visor .....	10
4.6	Air supply system .....	10
4.7	Air flow rate .....	11
4.8	Air flow rate warning device .....	11
4.9	Supply valve .....	11
4.10	Exhaust devices .....	11
4.11	Pressure in the suit .....	11
4.12	Carbon dioxide content of the inhalation air .....	11
4.13	Noise associated with the air supply to the suit .....	12
4.14	Escape device or emergency breathing facility .....	12
4.15	Expressing of the results .....	12
5	Test methods .....	12
5.1	Test preparation .....	12
5.1.1	General .....	12
5.1.2	Visual inspection .....	12
5.1.3	Conditioning for storage on samples and pre-treatment for reusable suits .....	12
5.2	Practical performance test .....	13
5.2.1	General .....	13
5.2.2	Procedure .....	14
5.2.3	Information to be recorded .....	15
5.3	Measurement of minimum and maximum air flow rate .....	15
5.4	Determination of the nominal protection factor .....	15
5.5	Detachable joins pull test .....	15
5.6	Exhaust device pull test .....	16
5.7	Suit test fixture .....	16
5.8	Carbon dioxide content of inhaled air .....	17
5.8.1	Test equipment .....	17
5.8.2	Test procedure .....	17
5.9	Emergency breathing/escape device protection test .....	17
6	Marking .....	18

<b>7</b>	<b>Information supplied by the manufacturer .....</b>	<b>18</b>
	<b>Annex A (normative) Material tests -- Resistance to ignition .....</b>	<b>20</b>
	<b>Annex B (normative) Total inward leakage test .....</b>	<b>21</b>
<b>B.1</b>	<b>Principle .....</b>	<b>21</b>
<b>B.2</b>	<b>Test subjects .....</b>	<b>21</b>
<b>B.3</b>	<b>Sodium chloride aerosol .....</b>	<b>21</b>
<b>B.3.1</b>	<b>Aerosol generator .....</b>	<b>21</b>
<b>B.3.2</b>	<b>Test agent .....</b>	<b>22</b>
<b>B.3.3</b>	<b>Detection .....</b>	<b>22</b>
<b>B.3.4</b>	<b>Flame photometer .....</b>	<b>22</b>
<b>B.3.5</b>	<b>Sample pump .....</b>	<b>22</b>
<b>B.3.6</b>	<b>Sampling of chamber concentration .....</b>	<b>22</b>
<b>B.4</b>	<b>Sampling .....</b>	<b>23</b>
<b>B.4.1</b>	<b>General .....</b>	<b>23</b>
<b>B.4.2</b>	<b>Sampling probes for the body and the challenge concentration .....</b>	<b>24</b>
<b>B.4.3</b>	<b>Sampling probe for the respiratory area .....</b>	<b>24</b>
<b>B.4.4</b>	<b>Position of sampling probes during the test .....</b>	<b>26</b>
<b>B.4.5</b>	<b>Collecting device used for a simultaneous extraction of the air from the 3 sampling probes located in the suit .....</b>	<b>26</b>
<b>B.4.6</b>	<b>Sampling lines .....</b>	<b>27</b>
<b>B.5</b>	<b>Test chamber .....</b>	<b>27</b>
<b>B.6</b>	<b>Treadmill .....</b>	<b>27</b>
<b>B.7</b>	<b>Pressure detection probe .....</b>	<b>27</b>
<b>B.8</b>	<b>Test procedure .....</b>	<b>27</b>
<b>B.9</b>	<b>Assessment of results .....</b>	<b>29</b>
	<b>Annex C (normative) Optical Chart .....</b>	<b>31</b>
	<b>Annex D (informative) Field of vision .....</b>	<b>32</b>
<b>D.1</b>	<b>Introduction .....</b>	<b>32</b>
<b>D.2</b>	<b>Proposed test procedure .....</b>	<b>32</b>
	<b>Annex E (informative) Environmental issues .....</b>	<b>33</b>
	<b>Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC aimed to be covered .....</b>	<b>35</b>
	<b>Bibliography .....</b>	<b>37</b>