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**GUIDE FOR SELECTION OF
INDUSTRIAL SAFETY EQUIPMENT
FOR PROTECTION OF ARMS AND HANDS**

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

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GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF ARMS AND HANDS

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Indian Standard

GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF ARMS AND HANDS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 9 June 1978, after the draft finalized by the Industrial Safety Advisory Committee had been approved by the Executive Committee.

0.2 This standard is intended to guide workers and those in charge of their safety in industrial operations in selecting such protective equipment for hands and arms as will give the required protection against hazards likely to be encountered.

0.3 This standard is one of a series of Indian Standards on industrial safety equipment for protection of arms and hands. Other standards published so far in the series are given on page 8.

1. SCOPE

1.1 This standard describes the various types of safety equipment for protection of arms and hands and provides guidance on the protection afforded against specific hazards by different types of protective equipment.

2. CLASSIFICATION OF HAZARDS RELATED TO PROTECTION OF ARMS AND HANDS

2.1 Hazards against which arms and hands protection equipment is used are given in Table 1.

3. TYPES OF PROTECTIVE EQUIPMENT FOR ARMS AND HANDS

3.1 The various types of protective equipment for arms and hands and the various hazards against which the equipment is used are given in Table 2.

TABLE 1 CLASSIFICATION OF HAZARDS RELATED TO PROTECTION OF ARMS AND HANDS

(Clause 2.1)

CODE No. OF HAZARD	DESCRIPTION OF HAZARD	TYPICAL INDUSTRIAL OPERATION
(1)	(2)	(3)
H-1	Heat, but where no irritant substance present and the risk of wear is not serious	Furnace work, drop stamping, casting and forging, handling hot tyres and similar operations
H-2	Heat, when irritant substance present and risk of wear is serious	Stoking gas retorts, riveting, holding up, hot chipping
H-3	Heat, when fair degree of sensitivity is required and splashes or spatter of molten metal may occur	Welding, case hardening in cyanide bath
H-4	Sharp materials or objects	Sharp metal after guillotining, blanking or machining
H-5	Glass or timber with splintered edges	—
H-6	Abrasions	Handling cold castings or forgings, precast concrete, bags of cement or bricks
H-7	Gross abrasion	Shot blasting
H-8	Light abrasion	Light handling operations
H-9	Chemicals	Handling or contact with acids, alkalis, dyes, and general chemicals, but not involving contact with solvents or oils
H-10	Solvents, oils and grease	Handling or contact with solvents, oils or grease
H-11	Electric shock	Electric current carrying equipment
H-12	X-ray and other radioactive radiations	Work on X-ray, radio isotopes, etc
H-13	Sharp materials or objects in alkaline degreasing bath	—
H-14	Electrolytic deposition	Plating and subsequent operations
H-15	Hot alkaline cleaning bath	—
H-16	Spraying paint or cellulose lacquers	—
H-17	Special hazards: lead tetraethyl; mercury and lead and their salts	—

**TABLE 2 PROTECTIVE EQUIPMENT FOR ARMS AND HANDS
AND THEIR USE***(Clause 3.1)*

CODE No.	TYPE OF EQUIPMENT	RECOMMENDED FOR USE AGAINST HAZARDS
(1)	(2)	(3)
E-1	Chrome leather gloves	H-1, H-8, H-16
E-2	Chrome leather inseam mitts and one-finger mitts	H-1, H-2, H-3, H-4, H-6, H-7, H-8
E-3	Chrome leather gauntlet	H-1, H-2, H-3
E-4	Chrome leather inseam gauntlet with canvas or leather cuffs, with or without reinforcement between thumb and forefinger	H-1, H-3, H-4
E-5	Chrome leather stapled double-palm gloves	H-6
E-6	Chrome leather inseam gauntlet with vein patches and aprons covering palm to first joint of fingers	H-4
E-7	Chrome leather back and palm inseam gloves	H-6
E-8	Chrome leather, felt lined (thumb only), mitts with canvas or leather faced palms	H-1, H-2, H-4, H-7, H-8, H-16
E-9	Lined polyvinyl chloride gloves and gauntlet	H-4, H-6, H-8, H-9, H-10, H-13, H-14, H-15, H-17
E-10	Unlined polyvinyl chloride gloves and gauntlet	H-9, H-10, H-13, H-14, H-15, H-16
E-11	Unlined light weight rubber gloves and gauntlet	H-6, H-7, H-8, H-9, H-10, H-14, H-16
E-12	Unlined medium weight rubber gloves and gauntlet	H-6, H-7, H-8, H-9, H-10, H-14, H-15, H-16, H-17
E-13	Unlined heavy weight rubber gloves and gauntlet	H-4, H-6, H-7, H-9, H-10, H-13, H-14, H-15, H-17
E-14	Chrome leather hand guards/pads	H-4, H-5, H-6, H-8
E-15	Cotton drill gloves	H-8, H-9
E-16	Cotton drill gloves with chrome leather palms	H-5, H-6, H-8

(Continued)

**TABLE 2 PROTECTIVE EQUIPMENT FOR ARMS AND HANDS
AND THEIR USE — Contd**

CODE No.	TYPE OF EQUIPMENT	RECOMMENDED FOR USE AGAINST HAZARDS
(1)	(2)	(3)
E-17	Lined light weight rubber gloves and gauntlet	H-6, H-10, H-16
E-18	Lined medium weight rubber gloves and gauntlet	H-6, H-9, H-10, H-13, H-14, H-15, H-16
E-19	Lined heavy weight rubber gloves and gauntlet	H-4, H-6, H-9, H-10, H-13, H-14, H-15
E-20	Asbestos gloves and gauntlet	H-1, H-2, H-3
E-21	Asbestos gloves and gauntlets rein- forced with leather	H-1, H-2, H-3
E-22	Aluminized fabric gauntlets	H-1
E-23	Natural rubber gloves	H-11
E-24	Lead rubber gauntlets	H-12
E-25	Lead plastics gauntlets	H-12
E-26	Lead leather gauntlets	H-12
E-27	Leather elbow pads	H-6, H-7, H-8
E-28	Rubber elbow pads	H-8
E-29	Asbestos sleeve	H-1, H-2
E-30	PVC sleeve	H-9
E-31	Rubber sleeve	H-9
E-32	Treated canvas sleeve	H-9

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INDIAN STANDARDS

ON

INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF ARMS AND HANDS

IS:

2573-1975 Leather gauntlets and mittens

4770-1968 Rubber gloves for electrical purposes

6994 (Part I)-1973 Industrial safety gloves: Part I Leather and cotton gloves

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Gangotri Complex, 5th Floor, Bhadbhada Road, T. T. Nagar, BHC PAL 462003	6 67 16
Plot No. 82/83, Lewis Road, BHUBANESHWAR 751002	5 36 27
53/5, Ward No. 29, R.G. Barua Road, 5th Byelane, GUWAHATI 781003	3 31 77
5-8-56C L. N. Gupta Marg (Nampally Station Road), HYDERABAD 500001	23 10 83
R14 Yudhister Marg, C Scheme, JAIPUR 302005	{ 6 34 71 6 98 32
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