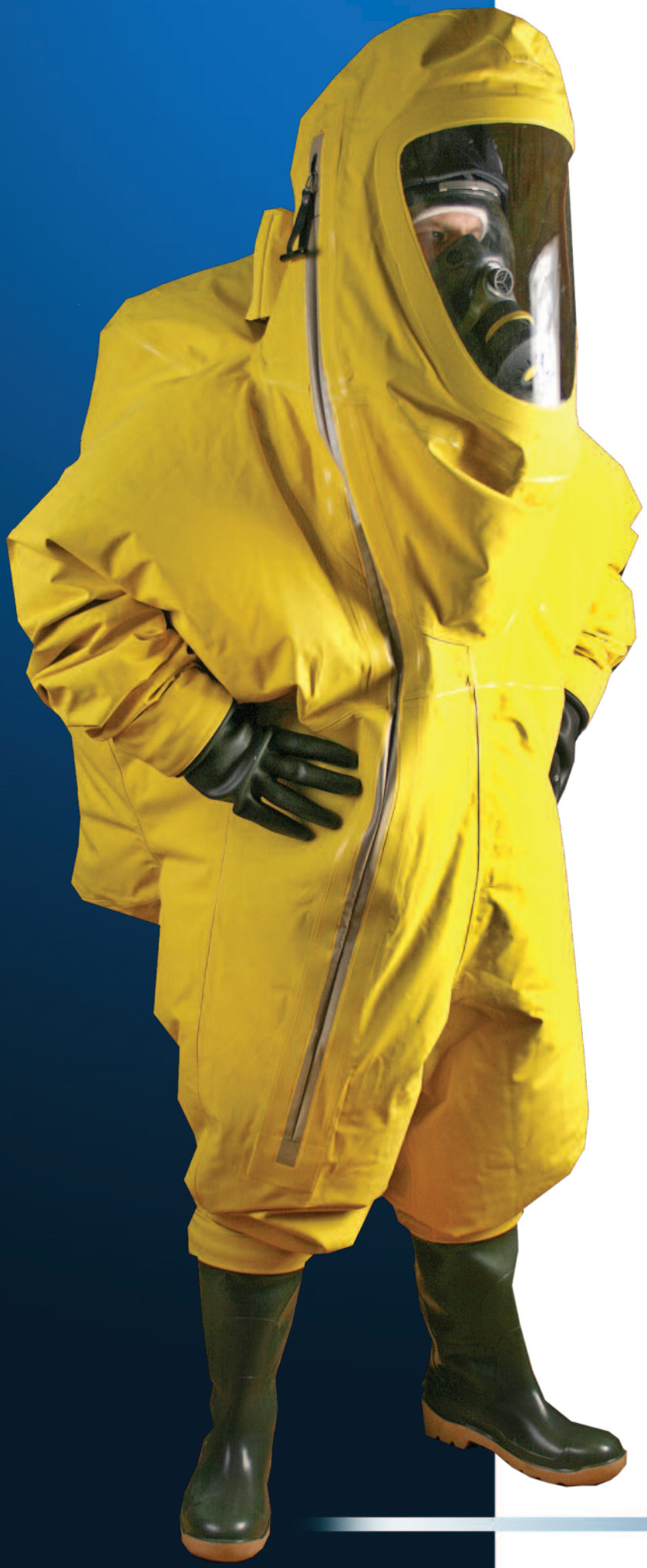


SPECIAL PROTECTIVE CLOTHING

PP-M Fire-Fighting Cloak

PP-M fire-fighting cloak designed for equipment managerial personnel of administrations and major units of State Fire Service of RF Ministry of Interior, who perform management of major fires extinguishing, in particular, chiefs of firefighting Headquarters, who for a long time exposed to hazardous fire factors (high temperatures, high intensity heat flows and eventual flame ejaculation), as well as adverse climatic influences (wind, rain, low temperatures up to - 50 °C).

It is created utilizing the baseline design of BOP-I-M firefighter's combat clothing and equipment and BOP-I-C-50 combat clothing of firefighters for Northern regions of the country.

The set includes:

- elongated jacket of flame retardant fabric with high-efficient signal elements and fluorescent lettering on the back: "MES of Russia";
- conventional jacket lining with high-efficient water-resistant barrier (waterproofing capacity is more than 2000 mm of water column.);
- auxiliary lining with high-efficient insulating layer;
- waistcoat made of natural fur (sheepskin) with elongated back-piece covering the loins.

Main parameters and specifications	
Resistance to ambient temperature up to +300 °C, s, no less than	300
Resistance to heat flow 5 kW/m^2, s, no less than 40 kW/m^2, s, no less than	 240 5
Resistance to contact with solid surfaces heated up to 400 °C, s, not less than	7
Resistance to open flame, s, no less than	15
Weight, kg, no more than	8

BOP-I-A, BOP-I-B General Service Uniform

BOP-I-A, BOP-I-B (TU 8570-004-46840277-00) with II 006-2012 protects personnel of fire departments from hazard environment factors that arise during rescue operations associated with fire extinguishing, as well as from adverse climatic effects.

BOP-I-A and BOP-I-B are suits for application in climatic regions with ambient temperature from − 40 °C to + 40 °C.

The number of produced height sizes: 6 (3 sizes of 2 heights each).

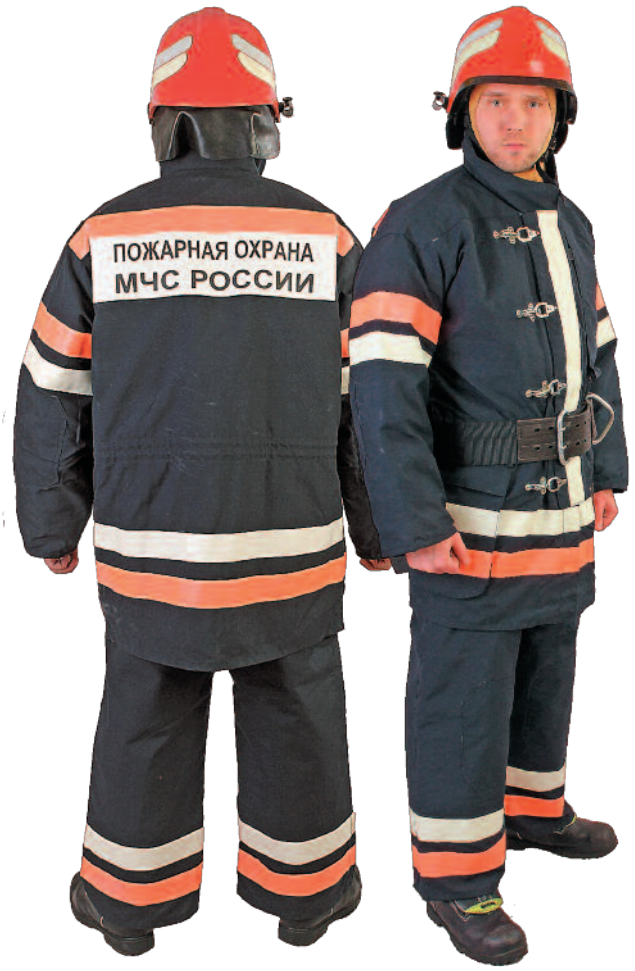
Distinctive features of the design:

- BOP-I-A jacket with karabinier clips; wing collar, set-in hood; breast pocket for walkie-talkie; set-in sleeves with elbow pads and knitted wristbands; clamp band for adjusting the jacket volume on the waist line; removable lining consisting of moisture and thermal barrier layers; signal strip with the width of at least 50 mm.
- BOP- I -B jacket differs by the absence of clamp band for adjusting the jacket volume and pocket for walkie-talkie; it has another arrangement of signal strips.

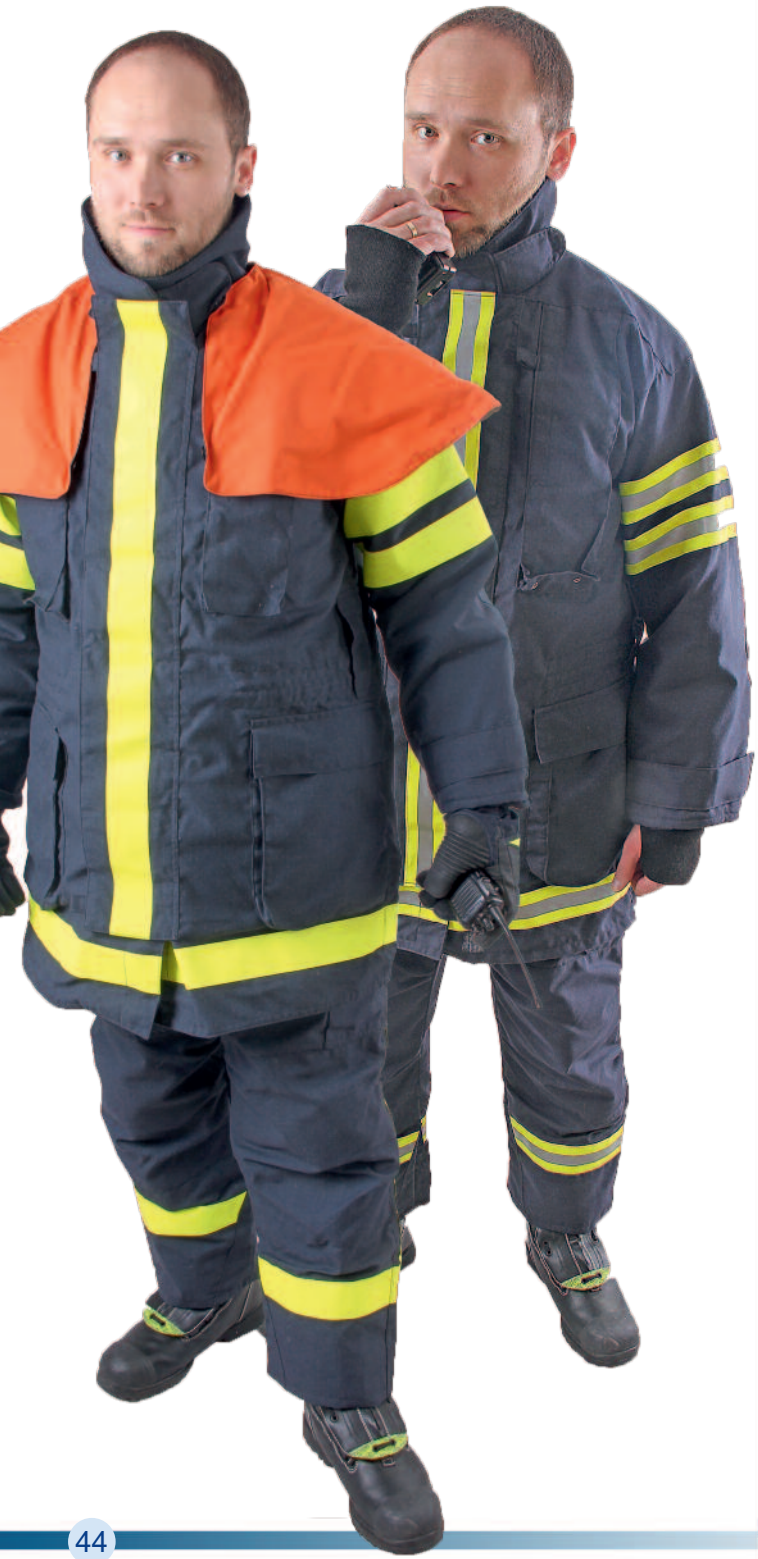
BCS-I-A designed for commanding staff;

BCS-I-B designed for the rank and file.

Item name	Item size	Human height
BOP-I-A, BOP-I-B	I	170-176
BOP-I-A, BOP-I-B	II	182-188



BOP-I-M General Service Uniform



General Service Uniform
(ТУ 8570-004-46840277-00) with ИИ (Change Notice) 006-2012

According to GOST R 53264-2009 Fire Engineering. Fire Fighters Special Protective Clothing. General Technical Requirements. Test Methods.

General service uniform is a modern personal protective equipment, developed on the basis of experience of use of domestic and imported 'fire-entry suits'.

Clothing protects personnel of firefighting divisions against high temperatures, heat flows of high intensity and possible flame ejaculations when working in extreme situations that arise when extinguishing the fire, performing reconnaissance and rescue of people.

Clothing also protects against adverse climatic effects: wind, precipitations, low temperatures (up to -40 ° C) and is available in several versions in the form of structural and unified series (SUS).

The versions differ in the type of central fastener ('zipper' or 'clasp', length of jacket, width and version of trousers (including overalls), availability of removable cape, leather knee and elbow pads, kind and number of pockets.

Number of available size ranges is 6 (3 sizes of 2 lengths each).

Design features: upper material is flame and heat resistant fabric of polyaramide fibers with water-resistant proofing and high strength (tensile strength shall be no less than 1000 N); fully waterproof design due to use of effective impervious barrier (flame and heat resistant rubberized fabric); improved ergonomics; compatibility with all kinds of fire-technical equipment and breathing apparatus.

MAIN FEATURES AND CHARACTERISTICS	
Resistance to ambient temperature up to +300 °C, s, no less than	300
Resistance to heat flow 5 kW/m², s, no less than 40 kW/m², s, no less than	 240 5
Resistance to contact with solid surfaces heated up to 400 °C, s, not less than	7
Resistance to open flame, s, no less than	15
Weight, kg, no more than	5

BOP-I-SPAS General Service Uniform for Fire Fighters and Rescuers

БОП-1-СПАС General Service Uniform for Fire Fighters and Rescuers (TU 8570-004-46840277-00) with II 006-2012

According to GOST R 53264-2009 Fire Engineering. Fire Fighters Special Protective Clothing. General Technical Requirements. Test Methods.

БОП-СПАС general service uniform for fire fighters and rescuers protects personnel of firefighting divisions against high temperatures, heat flows of high intensity and adverse climatic effects: wind, precipitations, low temperatures (up to -40°C) when working in extreme situations that arise when extinguishing the fire, performing reconnaissance and rescue of people, at road traffic accidents.

БОП-1-СПАС combines high-quality materials and modern design solutions considering the work specify of fire fighters and rescuers.

Firefighting uniform БОП-1-СПАС is a jacket and overalls with heat insulating undercoat that are produced in 3 versions that have the same design of upper part made of 3 different materials but are differed in way of connection to undercoat: version No 1 and No 2 have removable undercoat, version No 3 has unremovable undercoat.

Short-cut jacket with central zip fastener includes the following design elements: moisture proof flap, stand-up and turn-down collar, set-in pocket for radio station, belt loops for lantern, two side capacious patch pockets with flaps and holes for water drainage; lifesaving device available at the back for emergency evacuation of the injured rescuer; sleeves with gussets, elbow pads.

Overalls with zipper fastener, belt loops, cuts in side seam at hip level for easy access to undersuit space, side capacious pockets with flaps and holes for water drainage; inseam butterfly; spacing knee area, knee pads; down inseam reinforcement pad and rear heel cutout.

Reinforcing elements are made of split leather (version No 1) and AKAZSHEO™ fabric on the basis of para-aramid fibers (versions No 2 and No 3).

To increase the information content БОП-1-СПАС has retroreflective tape of width 70mm.

Number of available size ranges is 6 (3 sizes of 2 lengths each).

Features of upper material:

Version No1: Upper material is of polyaramid fibers of dark blue color. Surface density: 200 g/m^2. Tear resistance, not less than: 100 N. Tensile strength, not less than: 1000 N.

Version No 2: Upper Material is Advance, flame and heat resistant fabric of dark blue color of para- and meta-aramid fibers. Antistatic. Surface density: 200 g/m^2. Tear resistance, not less than: 140 N. Tensile strength, not less than: 2000 N.

Version No 3: Millenia Light ™ - flame and heat resistant fabric of yellow color of para-aramid fibers (Kevlar) and PBO (polyparaphenylene benzobisoxazole). It is ultra-light protective fabric due to surface density of 180 g/m^2. It has better resistance to attrition, high temperature, chemical resistance, abrasion and cuts than similar materials. Tear resistance, not less than: 200 N. Tensile strength, no less than: 2000 N.

MAIN FEATURES AND CHARACTERISTICS	
Resistance to ambient temperature up to +300 °C, s, not less than	300
Resistance to heat flow	
5 kW/m^2, s, not less than	240
40 kW/m^2, s, not less than	5
Resistance to contact with solid surfaces heated up to 400 °C, s, not less than	7
Resistance to open flame, s, no less than	15
Weight, kg, not more than	
Version No 1	4.60
Version No 2	4.10
Version No 3	3.65

BOP-I-C-50 General Service Uniform for Northern regions

BOP-I-C-50 general service uniform for Northern regions is modern means of individual protection (TU 8570-009-46840277-00).

It complies with GOST R 53264-2009 "Fire-fighting equipment. Firefighter special protective clothing. General technical requirements. Test methods."

In the design of BOP-I-C-50 general service uniform used the following modern materials and components:

- fire and heat-resistant heavy duty fabric of aramid fibers, such as NOMEX® with waterproof impregnation,
- high-efficiency waterproof protective barrier,
- high-performance signal elements,
- reliable fittings.

General service uniform protects personnel of fire departments from high temperatures, high intensity heat flows and eventual flame emissions in extreme situations that arise during extinguishing fires, carrying out reconnaissance and rescue people. General service uniform also protects from adverse climatic influences (wind, rain, low temperatures up to - 65 °C) and can be used in climatic regions of Russia with moderately cold, cold, and very cold climates. A set of BOP-I-C-50 protects from water, among other things, from surfactant additives, mild acids, and alkalis; it has antistatic properties as well.

Two types of general service uniform are available:

- BOP-I-C-50-A - for commanding staff,
- BOP-I-C-50-B - for rank and file.

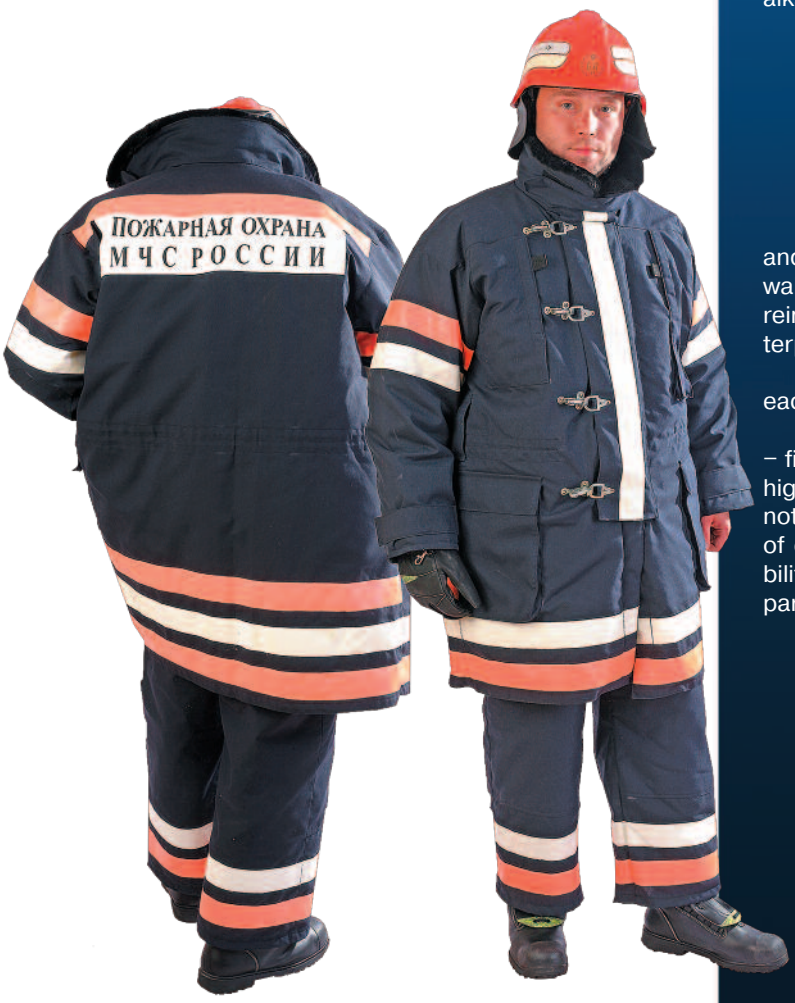
Option A – with signal strips.

General service uniform (BOP) scope of delivery:

Jacket with 2 removable insulating linings, waterproof layer and fur collar, trousers with removable water and heat insulator, waistcoat (heat-resistant), mittens: exterior of split leather with reinforcement straps and cuffs, internal – heat-resistant and waterproof with cuffs.

The number of produced height sizes: 6 (3 sizes of 2 heights each h).

General service uniform (BOP) distinctive features: top stuff – fire and heat-resistant fabric with waterproof impregnation and high strength aramid fibers, such as NOMEX® (breaking load of not less than 1000 N), a fully waterproof design through the use of effective impervious barrier, improved ergonomics, compatibility with all kinds of firefighting equipment and breathing apparatus.

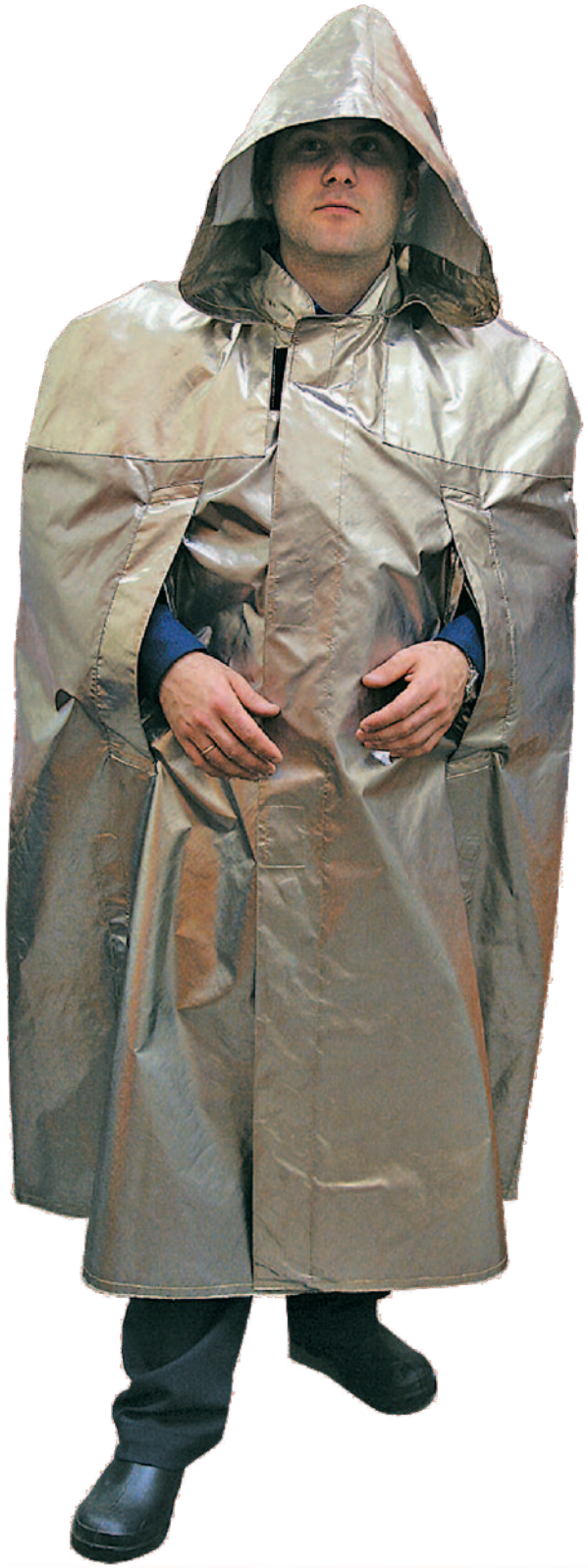


TSN Heat Protection Exposure Cover

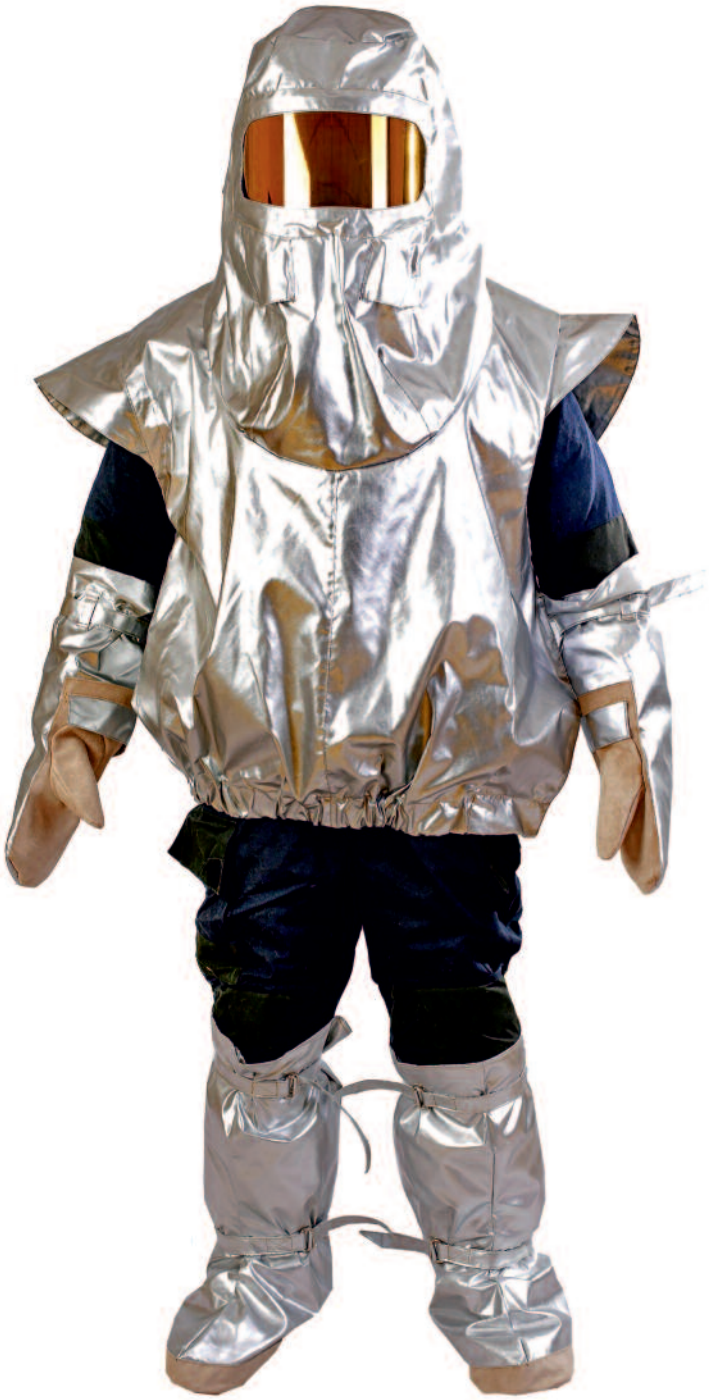
TSN cape provides protection from thermal exposure (open fire, heat flows, and contact with heated surfaces). It is intended for safe evacuation of people from buildings and premises during a fire.

The cape is essentially adjustable in size cloak with a hood, cut-outs for hands, and quick unsnapping hook and loop fastener. It can be used in a set with escape apparatus for the protection of respiratory organs. The cape is made of special metalized flame-resistant fabric with a high-grade infrared radiation reflection.

Main parameters and specifications	
Resistance to open flame, sec, at least	300
coefficient of infrared radiation attenuation, %, at least	70
Weigh, kg, at most	7
Dimensions in the folded state, mm, at most	240 x 360 x 25
The time of untrained person dressing, sec, at most	5



SLZ-L
Set of local protective means



SLZ-L Set of Fire Fighters Local Protective Means (TU 8570-049-38996367-2008).

The set is a light version according to GOST R 53264-2009

SLZ-L set of local protective means for fire fighters against high heat influences provides additional heat protection to the most vulnerable body parts: face, head, neck, arms and legs, as well as breathing apparatus of fire fighter when working close to flames and incandescent material.

It is used in urban areas instead of fire proximity set in restricted spaces (cellars, saunas, attics, tunnels, etc.).

Set includes: a cape with a hood, window and hold for breathing apparatus; gloves (palm part is reinforced with natural leather); boot covers.

Design features: increased area of protected body parts; improved ergonomics; panoramic heat-resistant heat reflective glass of window.

The suit is put on over general service uniform and any type of breathing apparatus.

MAIN FEATURES AND CHARACTERISTICS	
Resistance to heat flow 10 kW/m^2, s, not less than	480
Resistance to temperature +300 °C, s, not less than	480
Resistance to contact with solid surfaces heated up to 400 °C, s, not less than	15
Attenuation coefficient of infrared radiation, %, not less than	70
Resistance to open flame, s, not less than	20
Weight, kg, not more than	4

TOK-200-25-P/T Fire Proximity suit for Fire Fighters

TOK-200-25-P/T Fire Proximity Set.
The set is a light heavy version according to GOST R 53264-2009, TU 8570-007-46840277-00

TOK-200-25-П/T Fire proximity suit is designed for protection of personnel of firefighting divisions against high heat influences (intensive heat radiation, high environmental temperatures, short-time contact with open fire) and also environmental hazards. It also protects against adverse climatic effects: low temperatures, wind, precipitations.

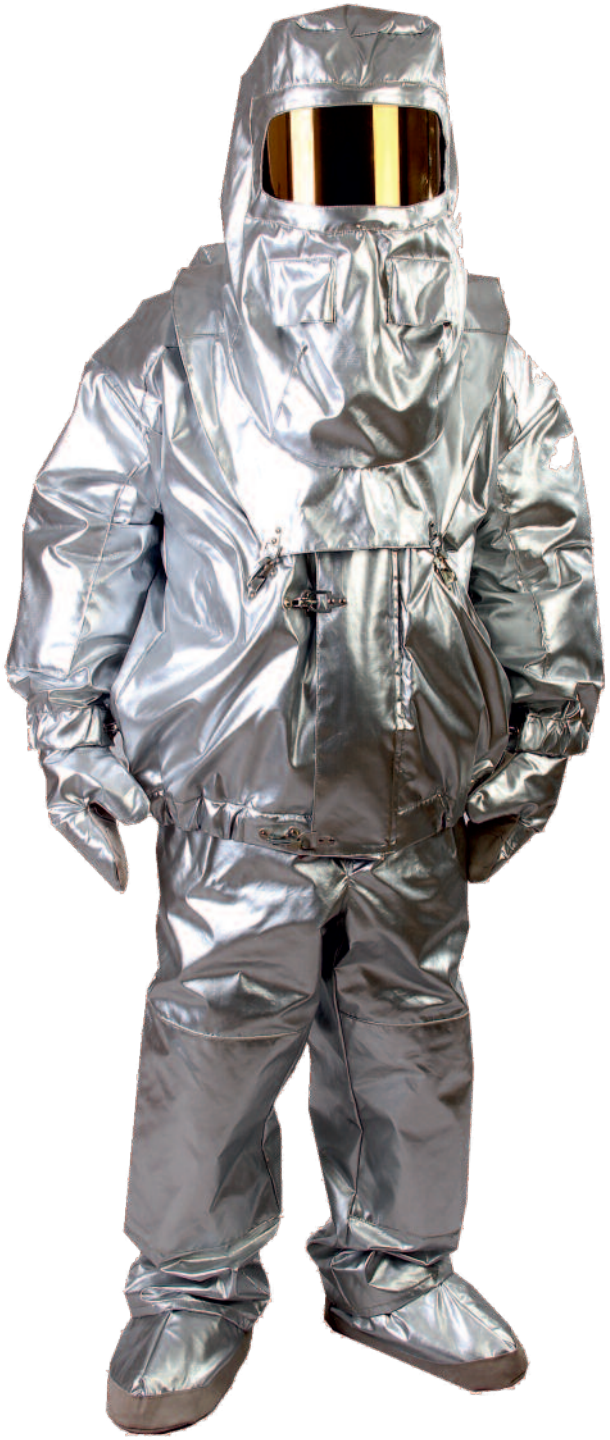
The suit is put on over general service uniform and any type of breathing apparatus used in fire protection.

For design modern materials and components are used: flame and heat resistant, heat reflective and metallized materials with high reflective index, heat resistant, heat reflective and panoramic optical elements (glass) of window, reliable accessories.

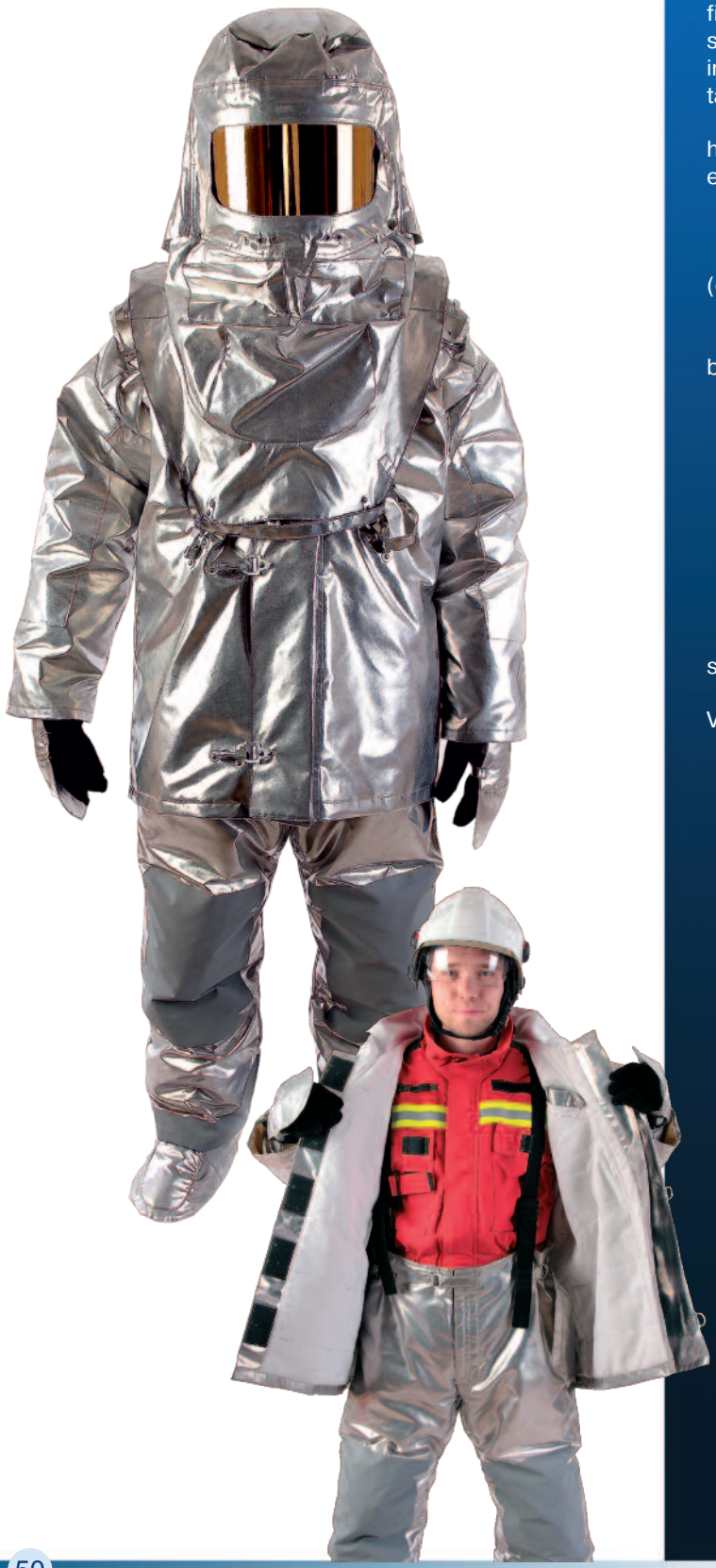
Number of available size ranges is 2 (medium and large).

Set includes: a jacket with a hood, window and hold for breathing apparatus, pants, vamp boot covers, gloves with heat insulating liners, packing bag.

MAIN FEATURES AND CHARACTERISTICS	
Resistance to heat flow	
25 kW/m², s, not less than	120
18 kW/m², s, not less than	600
10 kW/m², s, not less than	900
Resistance to temperature +300 °C, s, not less than	600
Resistance to open flame, s, not less than	20
Resistance to contact with solid surfaces heated up to 400 °C, s, not less than	15
Donning time (without help of assistant), s, no more than	80
Weight, kg, not more than	10



TOK-200 "Gazovik" ("Plamia") ("The flame")



TOK-200 "Gazovik" ("Plamia") is intended to protect firefighters from exposure to thermal radiation, high temperature, short contact with open fire, environmental hazards arising during the liquidation of oil fires and oil products; oil and gas fountains.

The set is made of special materials with heat-resistant and heat-reflecting properties. It refers to light heavy-weight type of execution according to GOST R 53264-2009.

The set includes:

- heat-reflecting suit (trousers and jacket with a hood);
- heat-reflecting outer protection of hands and feet (cuffs, shoe covers);
- internal heat-protective union suit;
- internal protection of hands and feet (gloves, ankle boots).

The set is available in three height sizes:

size 1 (96-100), height (158-164);
size 2 (104-108), height (170-176);
size 3 (112-118), height (182-188).

Union suit is the element of inner heat protection.

Maximum time of dressing with the help of assistant: 5 min.

Maximum time of respiratory tract independent freeing – 20 sec.

Protective properties according to GOST 12.4.103 – Ti, To, Vp.

Life cycle, at least: 10 hours.

Weight: 15.5 kg.

TK-800-40-T
Heat Protective Set

TK-800-40-T (TCK-2004) Heat Protective Set, TU 8570-008-46840277-00.

The set is a heavy version according to GOST R 53264-2009

Heat protective set is specially designed for protection of personnel of firefighting divisions against high heat influences (intensive heat radiation, high environmental temperatures, short-time contact with open fire) that arise when extinguishing the large-scale and complex fires at the gas and oil producing and oil refining enterprises.

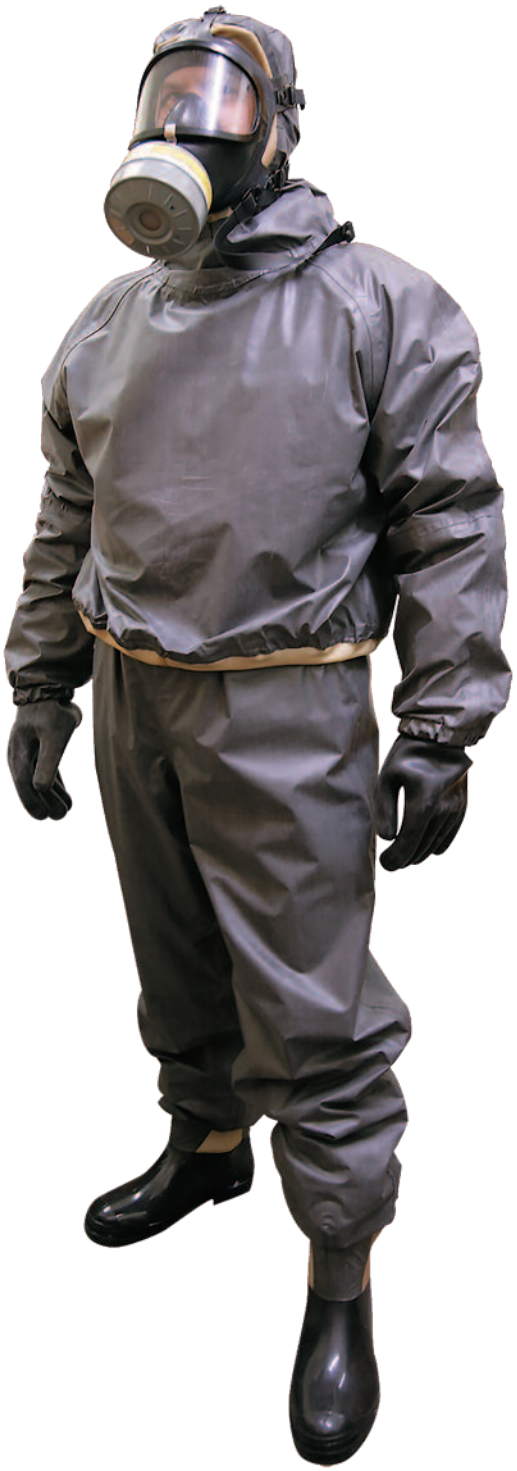
Suit allows working quickly and effectively close to inflamed areas of high bulk temperature and conduct rescue work.

High protective properties of suit are ensured due to use of modern materials and components in design: flame and heat resistant, heat reflective and metallized materials with high reflective index, high-performance heat-resistant insulator, heat resistant, heat reflective and panoramic optical elements (glass) of window, reliable accessories.

Suit is put on over any type of breathing apparatus. Number of available size ranges is 9 (3 sizes of 3 lengths each).

MAIN FEATURES AND CHARACTERISTICS	
Resistance to heat flow	
40 kW/m², s, not less than	120
25 kW/m², s, not less than	240
18 kW/m², s, not less than	960
Resistance to temperature +300 °C, s, not less than	960
Resistance to temperature +800 °C, s, not less than	20
Resistance to contact with solid surfaces heated up to 400 °C, s, not less than	15
Resistance to open flame, s, not less than	30
Attenuation coefficient of infrared radiation, %, not less than	70
Donning time (without help of assistant), s, not more than	80
Weight, kg, not more than	16

PULSAR Lihgtweght Hostile Environment Protection Outfit



Lightweight hostile environment protection outfit Pulsar. TU 8570-052-38996367-2011

Pulsar outfit is designed for protection of personnel of Emergency Rescue and State Fire Services of RF Ministry of Interior from dangerous and harmful factors of environment during support operations such as danger area security cordoning, decontamination and disinfection of gassed insulating suits after their exposure to danger areas, also from unfavorable climatic factor effects.

Lightweight hostile environment protection outfit «Pulsar» is designed in three variants using special materials:

- Pulsar-1 is made of material with high non-combustibility and oil-and-petrol resistance.
- Pulsar-2 is made of material with resistance against chemicals including chemical warfare agents (CWA) and rocket fuel components (RFC).
- Pulsar-Universal is made of special polymeric material which combines non-combustibility and oil-and-petrol resistance, high resistance against chemicals including CWA and RFC and also resistance to heat flux effects.

BASIC PARAMETERS

Parameter	Pulsar-1	Pulsar-2	Pulsar-Universal
Resistance to contact with solid surfaces heated up to +400°C, sec, no less than	5	5	5
Infrared attenuation coefficient, %, no less than	-	-	50
Operating temperature range, °C	-30...+40	-40...+40	-35...+40
Weight, kg, no more than	2,8	3,1	3,5

CHEMICAL RESISTANCE OF Pulsar OUTFITS TO HOSTILE ENVIRONMENTS

Hostile environment	Pulsar-1	Pulsar-2	Pulsar-Universal
Chemically hostile liquids			
Caustic soda NaOH (40% aqueous)	30	60	90
Sulphuric acid $H2SO_4$ (50% aqueous)	30	60	120
Nitric acid HNO_3(50% aqueous)	30	60	120
Hydrochloric acid HCl (30% aqueous)	30	60	120
Ammonia NH_4OH (25% aqueous)	-	10	10
Unsymmetrical dimethylhydrazine, number of usage, no less than	-	5	7
Physically hostile liquids			
1,2 ethylene dichloride	10	10	120
Benzene	10	10	120
Acetic acid CH_3COOH (70% aqueous)	10	10	20
Petroleum and petroleum products	20	5	120
Chemically hostile gases			
Ammonia NH_4OH (saturated vapor)	10	60	60
Gaseous chlorine (70 mg/l)	10	60	60
Physiologically active substances			
β,β'-dichlordiethyl sulphide, 1,0 g/m², no less than	-	60	90

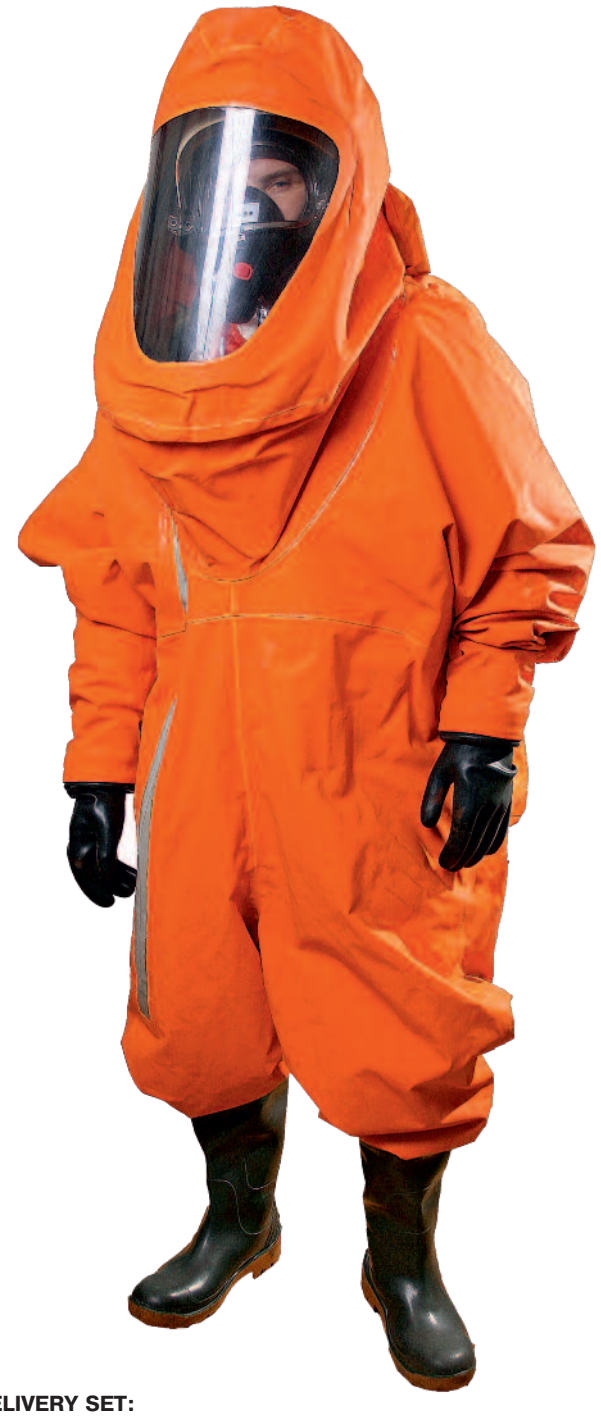
TASK Chemical-Resistant and Heat-Protective suit

TASK Chemical-Resistant and Heat-Protective Suit of Special Polymeric Materials. TU 8570-025-46840277-2003 with II 005-2011. According to GOST R 53264-2009

TASK is a sealed insulating suit with impact-resistant panoramic window of polycarbonate.

Breathing apparatus with compressed air is worn under a suit. There is a convenient sealed connection for removable protective boots and gloves.

It is designed to protect the personnel of firefighting and emergency rescue services of the Ministry of Emergency Situations of Russia against aggressive environments, high heat influences and adverse climatic conditions that arise when extinguishing the fire, performing reconnaissance and rescue of people, in case of accidents on chemically hazardous objects.



TECHNICAL CHARACTERISTICS

Environmental temperature	Work time. min
From -40 °C to +40 °C	30
From +40 °C to +100 °C	20
From +100 °C to +150 °C	3

SPECIAL REQUIREMENTS: Resistance of TACK suit upper material to aggressive environment

AGGRESSIVE ENVIRONMENT	Time of protective effect in case of contact with aggressive environment, no less than, min, at temperature C°, inclusive		
	-40...40°C	40...100°C	100...150°C
1. Chemically aggressive liquids			
Aqueous sodium hydroxide solution (NaOH) with mass fraction of 50% Aqueous sulfuric acid solution (H_2SO_4) with mass fraction of 50% Aqueous nitric acid solution (HNO_3) with mass fraction of 50% Aqueous hydrochloric acid solution (HC1) with mass fraction of 30%	90	30	5
2. Physically aggressive liquids			
1,2 dichloroethane Benzene Aqueous acetic acid solution (CH_3COOH) with mass fraction of 70% Oil and petroleum products	20	10/20*	-
3. Chemically aggressive gases			
Ammonia (NH_3) Chlorine (Cl_2)	60	30	5

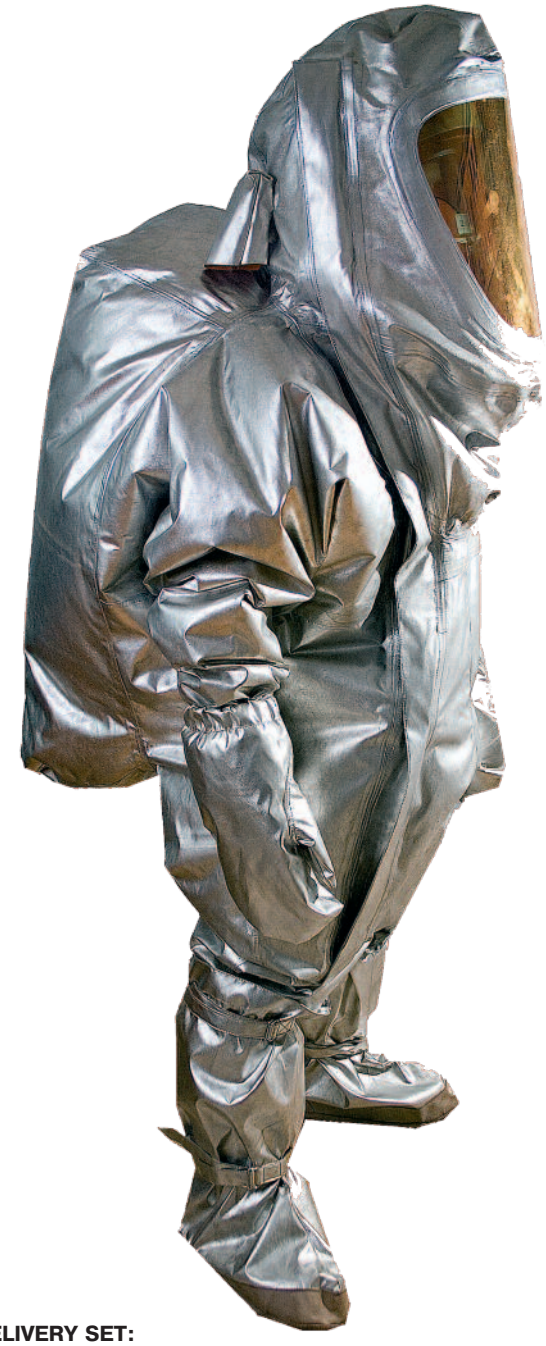
*** - effect with saturated vapor concentration**

BASIC PARAMETERS

Donning time (without help of assistant), s, no more than	3
Time for putting-off without help till respiratory tract release, s, no more	20
Weight, kg, noe more than	11

DELIVERY SET:
- insulating outer suit with a hood, window, hold for breathing apparatus, rubber gloves and boots;
- internal heat-insulating overall;
- internal heat-insulating hood with protective helmet;
- hygienic underwear (optional);
- special cutting resistant gloves (optional).

TASK-T Heat-Corrosion Resistant Heat-Reflective suit



DELIVERY SET:
- insulating external suit with hood, viewport, compartment for a breathing apparatus, rubber gloves and boots, shoe covers and gauntlets;
- internal heat-insulating one-piece suit;
- internal heat-insulating hood with a protective helmet;
- crest;
- hygienic clothes;
- special cutting-resistant gloves (at customer's option).

TASK-T Heat-Corrosion Resistant Heat-Reflective Suit of Special Polymeric Materials.
TU 8570-025-46840277-2003 with II 005-2011. According to GOST R 53264-2009

The insulated-type hermetic suit is designed on the basis of the Heat-Corrosion Resistant Suit made of special polymeric TACK materials.

The suit protects against the more wide range of corrosive environments, including propellant components and chemical warfare agents, as well as high-intensity heat flows (up to 14 kW/m^2).

It is made to protect the personnel of fire-fighting and rescue services of MES of Russia in extinguishing serious and complex fires, conducting a reconnaissance and rescuing people in case of accidents at chemically dangerous facilities.

The suit is equipped with a special hermetic zipper with a protective valve of the material of the environmental suit.

TECHNICAL CHARACTERISTICS

Environmental temperature	Work time. min
From -40 °C to +40 °C	30
From +40 °C to +100 °C	20
From +100 °C to +150 °C	3

CORROSIVE ENVIRONMENTS	Protective action time when in contact with an corrosive environment, at least, min., at the temperature of, C°, including		
	-40...40°C	40...100°C	100...150°C
1. Chemically aggressive liquids			
Aqueous sodium hydroxide solution (NaOH) with mass fraction of 50% Aqueous sulfuric acid solution (H_2SO_4) with mass fraction of 50% Aqueous nitric acid solution (HNO_3) with mass fraction of 50% Aqueous hydrochloric acid solution (HC1) with mass fraction of 30%	90	30	5
Propellant components	90	-	-
Resistance to pouring with fuel oxidizers	At least 3 times		
2. Physically aggressive liquids			
1,2 dichloroethane Benzene Aqueous acetic acid solution (CH_3COOH) with mass fraction of 70% Oil and petroleum products	20	10/20*	-
3. Chemically aggressive gases			
Ammonia (NH_3) Chlorine (Cl_2)	60	30	5
4. Physiologically active substances			
Chemical warfare agents	90	30	5

MAIN FEATURES AND CHARACTERISTICS

Suiting-up time (with the help of one assistant), min., no more than	3
Time to take off independently until the respiratory tract is released, sec., no more than	20
Weight, kg, noe more than	11

Heat-Corrosion Resistant suit TASK-V

Heat-corrosion resistant suit of special polymeric materials TASK-V with the combined compressed air supply from a breathing apparatus and from an external source. TU 8570-025-46840277-2003 with ИИ 005-2011. According to GOST R 53264-2009

The insulated-type hermetic suit, created on the TACK basis, is designed for conducting reconnaissance and rescuing works for longer periods in zones of corrosive environments due to the ability of the built-in vent valve to switch to external supply sources.

The vent valve provides:

– increase of the user's work time by connecting an external source of compressed air without breaking the leak tightness of the suit;

– user convenience due to the work from an external source of compressed air at the open valve of the cylinder of the breathing apparatus;

– continuity of supply of the breathing mixture to the user due to the fully automatic switch to optimal modes of operation;

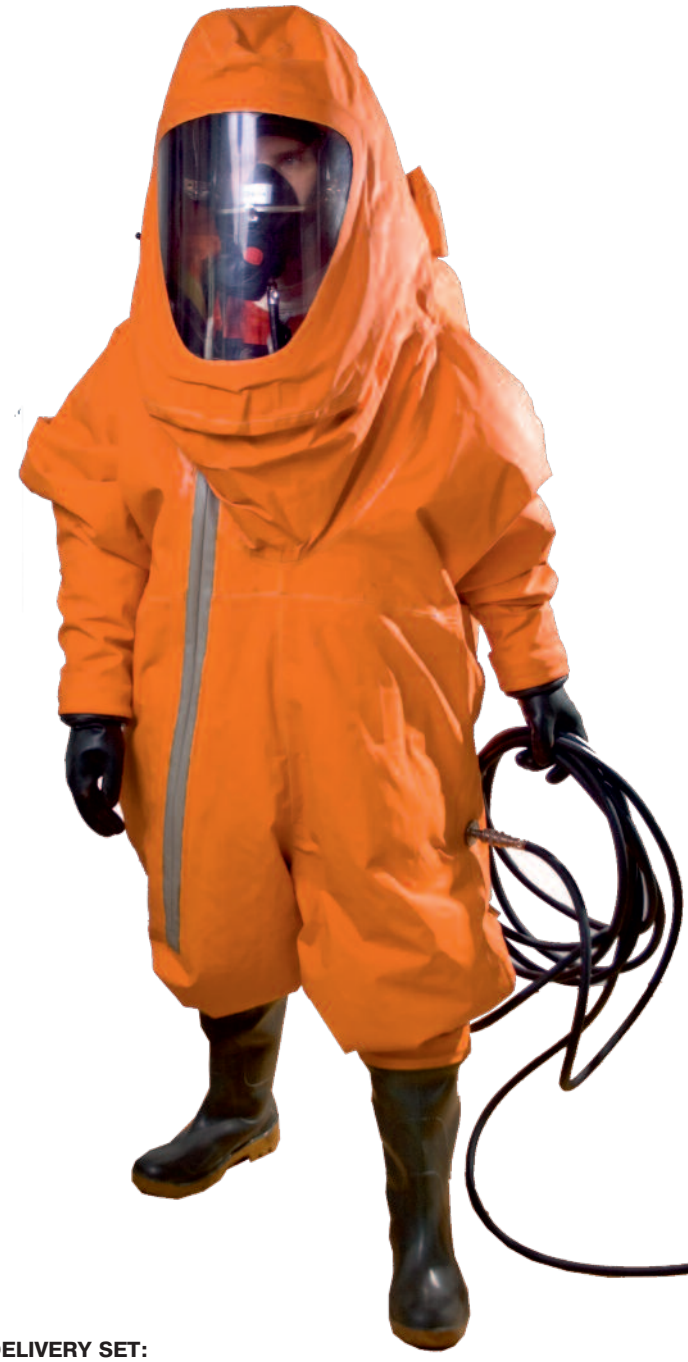
– user comfort due to the organization of the system of ventilation of PPE with a cool air during the operation from an external source.

Specification:

Ambient temperature	Work time. min
From -40 °C to +40 °C	30
From +40 °C to +100 °C	20
From +100 °C to +150 °C	3

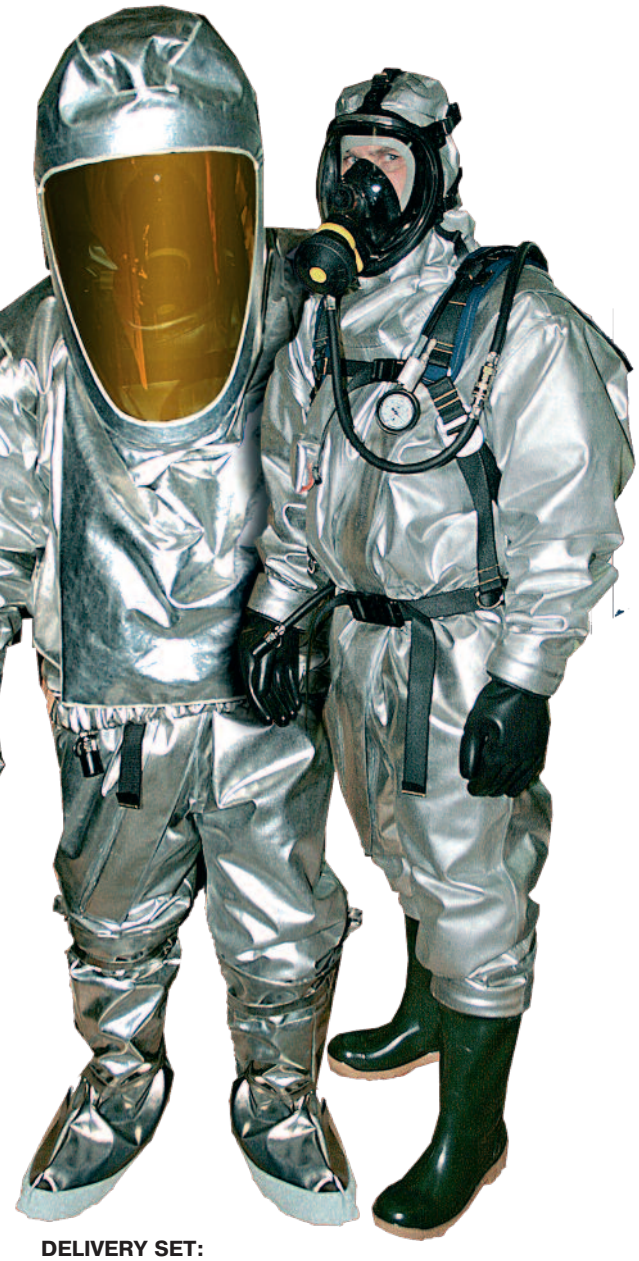
CORROSIVE ENVIRONMENTS	Protective action time when in contact with an corrosive environment, at least, min., at the temperature of, C°, including		
	-40...40°C	40...100°C	100...150°C
1. Chemically aggressive liquids			
Aqueous sodium hydroxide solution (NaOH) with mass fraction of 50% Aqueous sulfuric acid solution (H_2SO_4) with mass fraction of 50% Aqueous nitric acid solution (HNO_3) with mass fraction of 50% Aqueous hydrochloric acid solution (HC1) with mass fraction of 30%	90	30	5
Propellant components	90	-	-
Resistance to pouring with fuel oxidizers	At least 3 times		
2. Physically aggressive liquids			
1,2 dichloroethane Benzene Aqueous acetic acid solution (CH_3COOH) with mass fraction of 70% Oil and petroleum products	20	10/20*	-
3. Chemically aggressive gases			
Ammonia (NH_3) Chlorine (Cl_2)	60	30	5

MAIN FEATURES AND CHARACTERISTICS	
Suiting-up time (with the help of one assistant), min., no more than	3
Time to take off independently until the respiratory tract is released, sec., no more than	20
Weight, kg, noe more than	11



DELIVERY SET:
- insulating external suit with hood, viewport, compartment for a breathing apparatus, rubber gloves and boots;
- internal heat-insulating one-piece suit;
- internal heat-insulating hood with a protective helmet;
- vent valve;
- hygienic clothes;
- special cutting-resistant gloves (at customer's option).

TASK-MT Light-Weght Heat-Corrosion Reristant Heat-Reflective suit



DELIVERY SET:
- external one-piece suit with a hood (sealing over the face part), rubber gloves and boots;
- internal heat-insulating one-piece suit, hygienic clothes;
- protective cloak with viewport and compartment for cylinders of a breathing apparatus with compressed air (delivered at customer's option), cuffs and shoe covers;
- special cutting-resistant gloves (at customer's option)
Weight of one set, kg, no more than 9

TASK-MT Light-weight heat-corrosion resistant heat-reflective suit of special polymeric materials. TU 8570-025-46840277-2003 with II 005-2011. According to GOST P 53264-2009

TACK-MT suit is designed to protect the personnel of fire-fighting and rescue services of MES (Ministry of Emergency Situations) of Russia in case of fires or accidents, when conducting reconnaissance and preventive works at chemically dangerous facilities, as well as civil and military vessels for different purposes and with different power units.

The breathing apparatus with compressed air is put on over the suit, and that allows increasing the work time due to the available ability to replace cylinders quickly.

The close-fitting suit does not constrain the freedom of movement and allows overcoming the hatches and manholes with a diameter of from 600 mm.

The heat-reflective material provides protection against the effect of heat flows up to 14 kW/m2 (at least 180 sec.).

The available face seal allows using an individual full-face mask.

The great length of the hermetic zipper, which is vertically located at the front of the suit, allows the user to put on and take off the suit without too much effort and assistance.

The available protective cloak provides protection of the mask and breathing apparatus against chemically corrosive environments and heat flows.

Specification:

Ambient temperature	Work time. min
From -40 °C to +40 °C	30
From +40 °C to +100 °C	20
From +100 °C to +150 °C	3

CORROSIVE ENVIRONMENTS	Protective action time when in contact with an corrosive environment, at least, min., at the temperature of, C°, including		
	-40...40°C	40...100°C	100...150°C
1. Chemically aggressive liquids			
Aqueous sodium hydroxide solution (NaOH) with mass fraction of 50% Aqueous sulfuric acid solution (H_2SO_4) with mass fraction of 50% Aqueous nitric acid solution (HNO_3) with mass fraction of 50% Aqueous hydrochloric acid solution (HC1) with mass fraction of 30%	90	30	5
Propellant components	90	-	-
Resistance to pouring with fuel oxidizers	At least 3 times		
2. Physically aggressive liquids			
1,2 dichloroethane Benzene Aqueous acetic acid solution (CH_3COOH) with mass fraction of 70% Oil and petroleum products	20	10/20*	-
3. Chemically aggressive gases			
Ammonia (NH_3) Chlorine (Cl_2)	60	30	5
4. Physiologically active substances			
Chemical warfare agents	90	30	5

TASK-M Light-Weight Heat-Corrosion Resistant Chemical-Protective suit

TASK-M Light-Weight Heat-Corrosion Resistant Suit. TU 8570-025-46840277-2003 with II 005-2011.
According to GOST R 53264-2009

It is designed to protect the personnel of fire-fighting and rescue services of MES of Russia in case of fires or accidents, when conducting reconnaissance and preventive works at chemically dangerous facilities, as well as civil and military vessels for different purposes and with different power units.

The breathing apparatus with compressed air is put on over the suit, and that allows increasing the work time due to the available ability to replace cylinders quickly.

The close-fitting suit does not constrain the freedom of movement and allows overcoming the hatches and manholes with a diameter down to 600 mm.

The strong tight connections of changeable gloves and boots ensure the safe operation.

The available face seal allows using an individual full-face mask.

The great length of the hermetic zipper, which is vertically located at the front of the suit, allows the user to put on and take off the suit without too much effort and assistance.

The available protective cloak provides protection of the face mask and breathing apparatus against chemically corrosive environments.

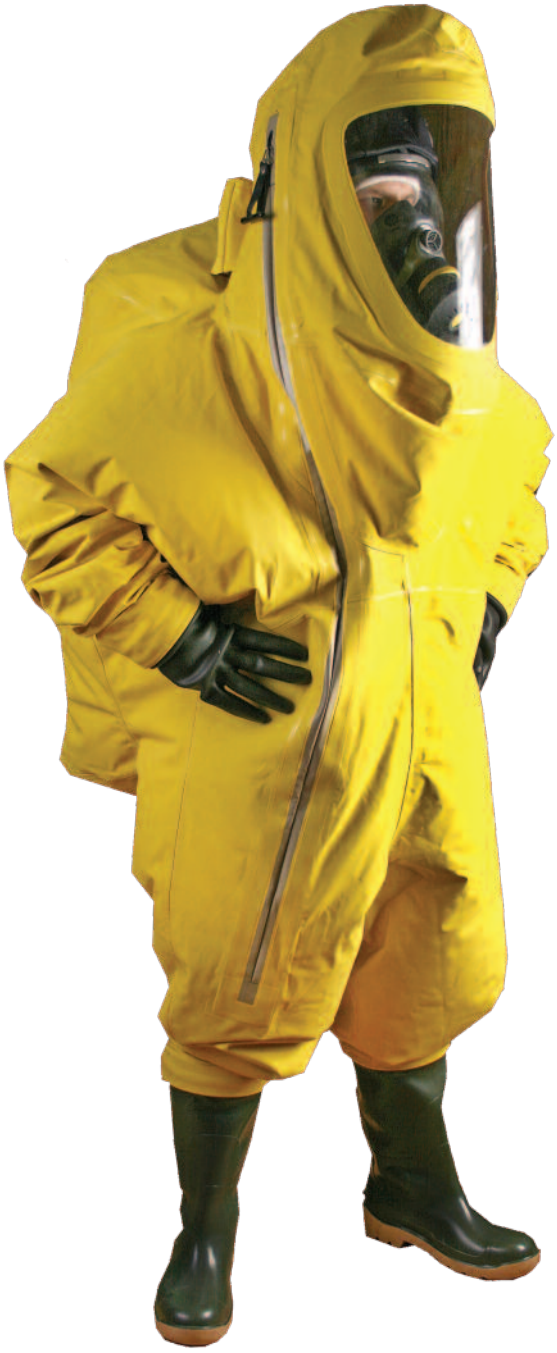
Specification:

Ambient temperature	Work time. min
From -40 °C to +40 °C	30
From +40 °C to +100 °C	20
From +100 °C to +150 °C	3

CORROSIVE ENVIRONMENTS	Protective action time when in contact with an corrosive environment, at least, min., at the temperature of, C°, including		
	-40...40°C	40...100°C	100...150°C
1. Chemically aggressive liquids			
Aqueous sodium hydroxide solution (NaOH) with mass fraction of 50% Aqueous sulfuric acid solution (H_2SO_4) with mass fraction of 50% Aqueous nitric acid solution (HNO_3) with mass fraction of 50% Aqueous hydrochloric acid solution (HC1) with mass fraction of 30%	90	30	5
2. Physically aggressive liquids			
1,2 dichloroethane Benzene Aqueous acetic acid solution (CH_3COOH) with mass fraction of 70% Oil and petroleum products	20	10/20*	-
3. Chemically aggressive gases			
Ammonia (NH_3) Chlorine (Cl_2)	60	30	5

DELIVERY SET:
- external one-piece suit with a hood (sealing over the face part), rubber gloves and boots;
- internal heat-insulating one-piece suit, hygienic clothes;
- protective cloak with viewport and compartment for cylinders of a breathing apparatus with compressed air, protective gloves, special cutting-resistant gloves (at customer's option).
Weight of one set, kg, no more than 9

RZK
Firefighters Raidation Protection outfit



DELIVERY SET:
- insulating suit with a hood, a visor, a breathing apparatus compartment, gloves and boots;
- heat and radiation protective overalls;
- protective hood;
- radiation protective: bib overalls, cape, shorts, insoles and-boots;
- hygienic underwear;
- special cut-resistant gloves (optional).

RZK Radiation Protection Outfit. TU 8570-047-38996367-2004 with II 005-2011. According to GOST R 53264-2009.

The outfit is designed for integrated personal human protection during fire-fighting and salvage and rescue operations in combined beta- and gamma-radiation areas, including cases of fire and accidents at nuclear reactors.

The outfit is designed for protection against external beta- and partial gamma-radiation, high temperature, heat fluxes, radioactive gas and aerosol incorporation through respiratory and alimentary tracts, also against radioactive contamination of skin and mucous membranes.

P3K outfit allows to eliminate the subtotal radiation burn and to reduce the effects of penetrating radiation upon organs and tissues considering their varied radiation sensitivity, which enhances lifesaving chances during an uncontrolled overexposure and increases the duration of stay in a controlled radiation area.

The duration of personnel stay in a high combined gamma-radiation area depends on the equivalent dose rate and must be based on the dose limits specified by the Radiation Safety Standards NRB-99 for group A.

Specification:	
Ambient temperature	**Work time. min**
From -40 °C to +40 °C	30
From +40 °C to +100 °C	20
From +100 °C to +150 °C	3

Beta-radiation attenuation factor for energy under 2 MeV (source Sr90), no less than	150
External gamma-radiation attenuation factor for energy of 122 KeV (source Co^{57}), no less than	5,5

MAIN PARAMETERS AND SPECIFICATIONS	
Donning time (assisted by one person), min., no more than	3
Unassisted doffing time until respiratory tract release, sec, no more than	20
Outfit weight, kg, no more than	25

RZK-M Mobile Radiation Protective outfit

RZK-M Mobile Radiation Protective Outfit. TU 8570-047-38996367-2004 with II 005-2011. According to GOST R 53264-2009

The outfit is designed for integrated personal human protection during salvage and rescue operations in combined beta- and gamma-radiation areas, especially in small space areas with thick walls, particularly at nuclear-powered civil and war ships.

The compressed air breathing apparatus is to be donned over the suit, which allows increasing the working time thanks to the quick cylinder change possibility.

The closely fitted suit does not encumber mobility and allows getting through hatches and passageways of a diameter more than 600 mm.

Presence of a facial seal allows using of a personal full face mask.

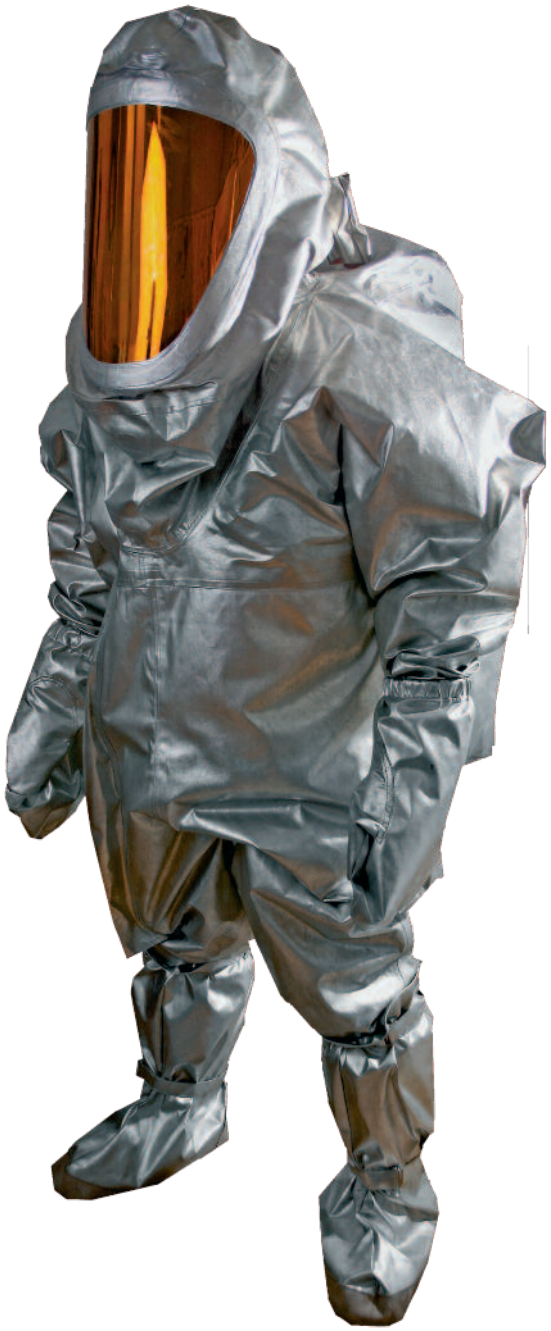
Specification:	
Ambient temperature	**Work time. min**
From -40 °C to +40 °C	30
From +40 °C to +100 °C	15
From +100 °C to +150 °C	3

Beta-radiation attenuation factor for energy under 2 MeV (source Sr90), no less than	150
External gamma-radiation attenuation factor for energy of 122 KeV (source Co^{57}), no less than	5,5

DELIVERY SET:
- **external suit with rubber gloves and boots;**
- **heat protective inner suit;**
- **radiation protective: cape, shorts, vest, insoles;**
- **hygienic water-absorbing underwear;**
- **special cut-resistant gloves (optional).**

Outfit weight, kg, no more than 18

RZK-F
Radiation and Fire Protection outfit for Fightfighters



DELIVERY SET:
- external insulating suit with a hood, a visor, a breathing apparatus compartment, rubber gloves and boots, overboots and gauntlets;
- heat protective hood;
- crest;
- heat and radiation protective overalls;
- radiation protective: cape, bib overalls, shorts, insoles and boots;
- hygienic underwear;
- special cut-resistant gloves (optional).

RZK-F Radiation and Fire Protection Outfit for Firefighters. TU 8570-025-46840277-2003 with II 005-2011. According to GOST R 53264-2009

The outfit is designed for integrated personal human protection during fire-fighting and salvage and rescue operations in combined beta- and gamma-radiation areas, including cases of fire and accidents at nuclear reactors.

The outfit is designed for protection against external beta- and partial gamma-radiation, high temperature, heat fluxes, radioactive gas and aerosol incorporation through respiratory and alimentary tracts, also against radioactive contamination of skin and mucous membranes.

It allows to eliminate the subtotal radiation burn and to reduce the effects of penetrating radiation upon organs and tissues considering their varied radiation sensitivity, which enhances lifesaving chances during an uncontrolled overexposure and increases the duration of stay in a controlled radiation area.

It protects from a wide range of hostile environments, including propellant fuel and chemical warfare agents, also heat fluxes of high intensity up to 14 kW/m2 (for no less than 180 sec).

The duration of personnel stay in a high combined gamma-radiation area depends on the equivalent dose rate and must be based on the dose limits specified by the Radiation Safety Standards NRB-99 for group A.

Specification:	
Ambient temperature	**Work time. min**
From -40 °C to +40 °C	20
From +40 °C to +100 °C	15
From +100 °C to +150 °C	3

Beta-radiation attenuation factor for energy under 2 MeV (source Sr^{90}), no less than	150
External gamma-radiation attenuation factor for energy of 122 KeV (source Co^{57}), no less than	5,5

MAIN PARAMETERS AND SPECIFICATIONS	
Donning time (assisted by one person), min., no more than	3
Unassisted doffing time until respiratory tract release, sec, no more than	20
Outfit weight, kg, no more than	25

RZK-MT
Mobile Radiation and Fire Protection outfit

РЗК-MT Mobile Radiation and Fire Protection Outfit. TU 8570-025-46840277-2003 with II 005-2011. According to GOST R 53264-2009

The outfit is designed for integrated personal human protection during fire-fighting and salvage and rescue operations in combined beta- and gamma-radiation areas, especially in small space areas.

The outfit is designed for protection against external beta- and partial gamma-radiation, high temperature, heat fluxes, radioactive gas and aerosol incorporation through respiratory and alimentary tracts, also against radioactive contamination of skin and mucous membranes.

The compressed air breathing apparatus is to be donned over the suit, which allows increasing the working time thanks to the quick cylinder change possibility.

Fire protective material provides the suit with protection against the effects of heat fluxes up to 14 kW/m2 (for no less than 180 sec).

The closely fitted suit does not encumber mobility and allows getting through hatches and passageways of a diameter more than 600 mm.

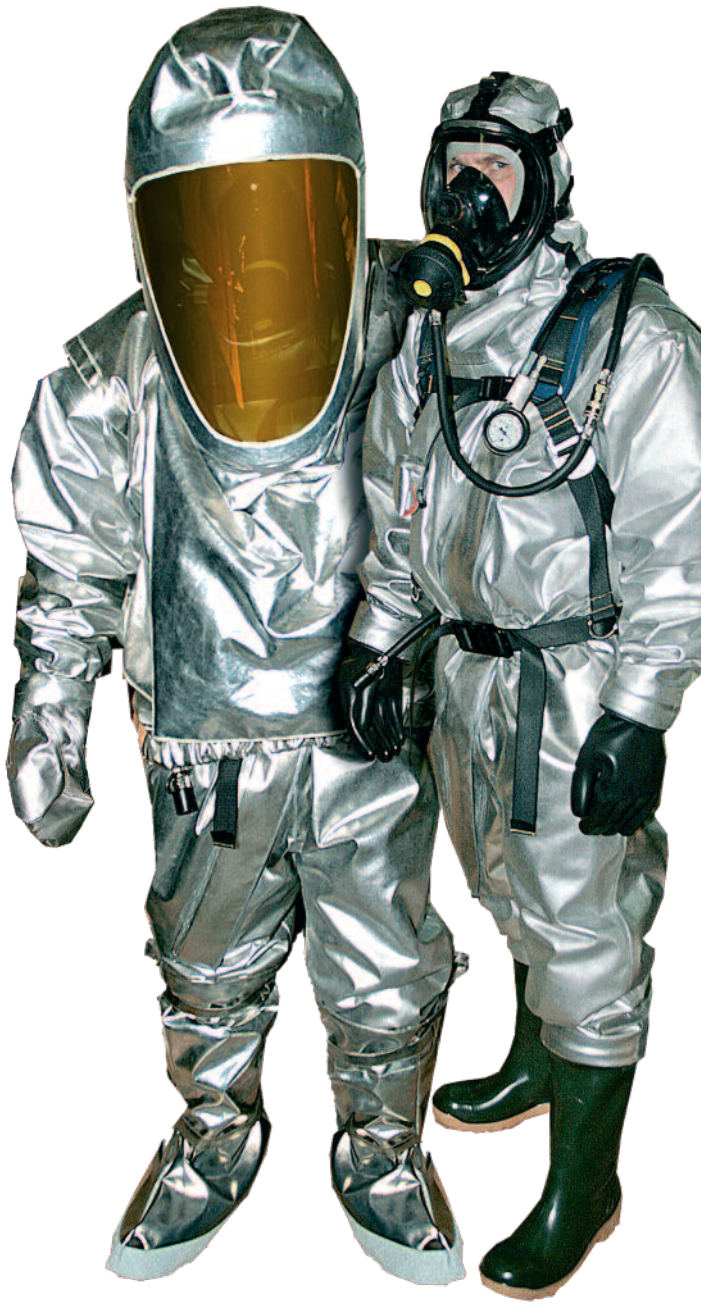
Presence of a facial seal allows using of a personal full face mask.

Presence of a protective cover, overboots, gauntlets provides the mask and breathing apparatus with protection against chemically hostile environments and heat fluxes.

Specification:	
Ambient temperature	**Work time. min**
From -40 °C to +40 °C	20
From +40 °C to +100 °C	15
From +100 °C to +150 °C	3

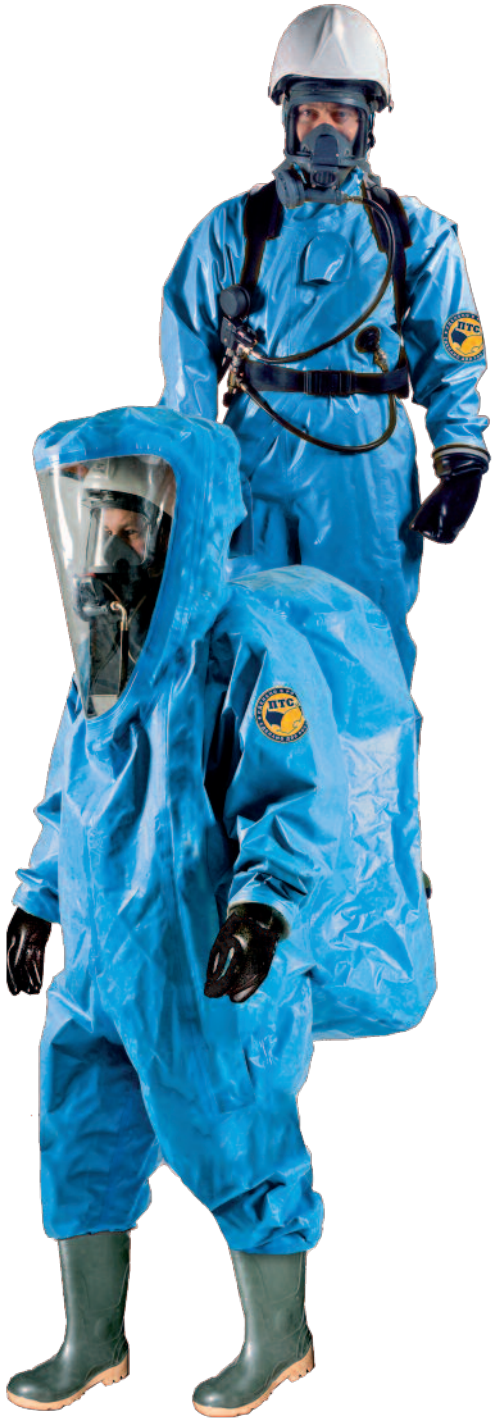
Beta-radiation attenuation factor for energy under 2 MeV (source Sr^{90}), no less than	150
External gamma-radiation attenuation factor for energy of 122 KeV (source Co^{57}), no less than	5,5

MAIN PARAMETERS AND SPECIFICATIONS	
Donning time (assisted by one person), min., no more than	3
Unassisted doffing time until respiratory tract release, sec, no more than	20
Outfit weight, kg, no more than	18



DELIVERY SET:
- external insulating suit with a hood, a visor, a breathing apparatus compartment, rubber gloves and boots, overboots and gauntlets;
- heat protective hood;
- crest;
- heat and radiation protective overalls;
- radiation protective: cape, bib overalls, shorts, insoles and boots;
- hygienic underwear;
- special cut-resistant gloves (optional).

STALKER-PRO-M Heat and Hostile Eenvironment Protection Insulating suit



Heat and hostile environment protection suit of special polymeric materials. TU 8570-053-38996367-2010 with II 001-2011

New model range of insulating suits Сталкер-ПРО and Сталкер-ПРО-М, developed by PTS open joint-stock company in co-operation with "Trelleborg Protective Products AB" company.

Comes in 2 types: one-piece (CABA placed inside the suit) and open (CABA placed outside the suit), variant "M".

One-piece type insulating suit Сталкер-ПРО is easily donned over general service uniform.

The material is polyamide fabric double-coated with chloroprene rubber and internally laminated with plastic sheeting. The color is blue (or anthracite for special application).

The seams are pressure-sealed with a band on the inside and on the outside.

The zipper is gasproof.

The gloves are made of butyl rubber, fastened with a ring system to make their replacement possible.

The boots are made of polyvinyl chloride, 100% oil-and-petrol resistant and acid-base resistant, steel-capped, with steel insoles, heat-retardant, fastened with a ring system to make their replacement possible.

Panoramic visor of Сталкер-ПРО suit is made of chemical- and impact-resistant polyvinyl chloride.

Over-pressure relief valves are automatic, need no check with special equipment, are protected with covers.

Resistance to open flame effects for no less than 5 seconds.

Resistance to contact with solid surfaces heated up to +400 °C – for no less than 5 seconds.

Product weight: Сталкер-ПРО – 11 kg,
Сталкер-PRO-M - 8 kg.

Sizes L, XL, XXL.

Optional delivery of special cut-resistant gloves.

HOSTILE ENVIRONMENTS	Time of protection during the contact with the hostile environment, no less than, min, with C° temperature, including		
	-40...40°C	40...100°C	100...150°C
1. Chemically hostile liquids			
Aqueous caustic soda (NaOH), 50% of total mass Aqueous sulphuric acid ($H2SO_4$), 50% of total mass Aqueous nitric acid (HNO_3), 50% of total mass Aqueous hydrochloric acid (HCl), 50% of total mass	90	30	5
Rocket fuel components (RFC)	90	-	-
Resistance to fuel oxidant poured over	3 times minimum		
2. Physically hostile liquids			
1,2 ethylene dichloride Benzene Aqueous acetic acid ($CH3COOH$), 70% of total mass Petroleum and petroleum products	20	10/20*	-
3. Chemically hostile gases			
Ammonia (NH_3) Chlorine (Cl_2)	60	30	5

STALKER-M
Hostile Environment Protection Insulating suit

Hostile environment protection suit of special polymeric materials. TU 8570-054-38996367-2010 with II 001-2011

New model range of insulating suits "Сталкер" and "Сталкер-М", developed by PTS open joint-stock company in cooperation with "Trelleborg Protective Products AB" company.

Comes in 2 types: one-piece (CABA placed inside the suit) and open (CABA placed outside the suit), variant "M".

The suit material is polyamide fabric with external polyvinyl chloride cover, sharp yellow color.

The seams are welded.

The zipper is gasproof.

The gloves are made of butyl rubber, fastened with a ring system to make their replacement possible.

The boots are made of polyvinyl chloride, 100% oil-and-petrol resistant and acid-base resistant, steel-capped, with steel insoles, heat-retardant, fastened with a ring system to make their replacement possible.

Panoramic visor (of the one-piece type suit) is made of soft polyvinyl chloride.

Over-pressure relief valves are automatic, need no check with special equipment, are protected with covers.

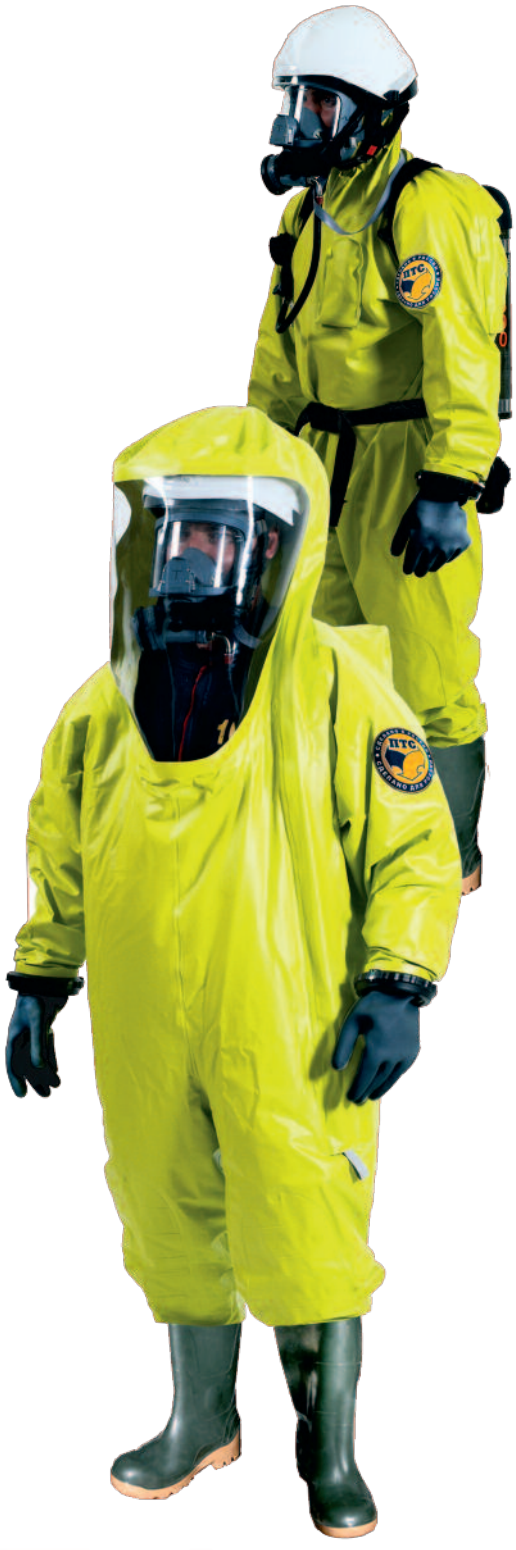
Operating temperature range from -40 °C to +40 °C.

Product weight: Сталкер – 8 kg., Сталкер-М – 7 kg.

Sizes – 3 (L, XL, XXL).

Optional delivery of special cut-resistant gloves.

Chemical resistance of the suit to hostile environments	Time of resistance of material to hostile environment effects with substance flow 0,1 μg/cm/min, temperature of 20-230 C°, min
Gaseous ammonia	300
Aqueous caustic soda, 40%	480
Aqueous hydrochloric acid, 37%	170
Petroleum products (diesel fuel)	220
Ethylene glycol	480
Phenol	480
Formaldehyde	480
Aqueous sulphuric acid, 50%	480
Aqueous ammonia, 25%	20
Glacial acetic acid	25



"PTS-Vertical"

(Individual rope-descending manual fire-fighting equipment)

"PTS-Vertical" is intended for firefighters self-rescue from high buildings of different assignment, where the use of main evacuation ways is impossible or difficult, as well as to address other operational and tactical tasks during combat operations of fire extinguishing and carrying out emergency rescue works.

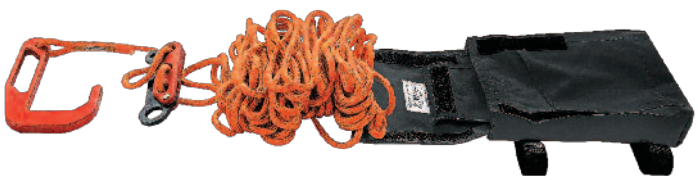
When entering the burning building in searching people, which are caught in the trap or unable to move in the smoke, firefighters expose themselves to a great risk. Sometimes there are situations when the escape routes cut off by fire and it is impossible to establish lifting gears. This may lead to tragic consequences both for firefighters and for the people they are trying to save.

Simple and compact personal life saving appliance "PTS-Vertical" increases the probability of firefighter survival in a difficult situation.

UKSIPr "PTS-Vertical" allows quickly (within 15-20 seconds) leave the danger area using a hook without fear to damage ropes with sharp objects or open flame.

The hook of appliance can be used as a friction washer when rescuing a friend or a victim.

Besides, the appliance can be used as a belay when working at heights with mechanical hand tools.



Main parameters and specifications	
RThe weight of a descending man, kg	from 40 to 200
The length of heat-resistant rescue rope (VTS), at least	15
VTS diameter, mm	7.5-9
Dimensions in a bag (W x L x H) mm, at most	260 x 200 x 55
Weigh, kg, at most	1.40
Service life, cycles	100
Arresting device service life, cycles	500