

**JUNG**  
GUMMI**TECHNIK** GmbH

**OUR**  
**GLOVES**



**JUGITEC®**

**B | BV | H | E | ISOflex | Pharma | Pharma Plus**

**SAFETY FOR GLOVEBOX AND OCCUPATIONAL SAFETY**

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## ABOUT US

### JUNG RUBBER TECHNOLOGY

reaching success through differentiation

The **JUNG GUMMITECHNIK GmbH** is an internationally active company in the field of rubber technologies headquartered in Einhausen in the Rhine-Main-Neckar region. It is part of the portfolio of OWG Beteiligungs AG. Since its foundation in 1982, the company has specialised in manufacturing various products made from the highest-quality elastomers. The company and its products have been continuously developed and expanded since then. The focus was initially on hand-assembled manifolds, diving products, hoses and moulded items. The product portfolio was later expanded to include protective gloves and glovebox gloves.

Since 2018, the company has had another location in Warstein in the Sauerland region.

Over 200 employees combined dip, press and mould products in three different plants at the Einhausen and Warstein sites on a total area of approx. 25,000 square metres using state-of-the-art technology and the latest safety standards. The quality of the manufactured products and the wishes of the customers always take centre stage. Our brands JUGITEC® (gloves) and JUNG



THE COMPANY

Rubbertec® (technical rubber goods) stand for the highest quality, designed to meet the needs of our customers. We maintain a close and reliable development and technology partnership with our customers, many of whom have supported and valued us for decades. We differentiate ourselves from our competitors on the market in particular through our distinctive solution-orientated approach and by representing the entire vertical range of manufacture in-house.



**1982**

Company founded  
by Friedrich JUNG  
in Lorsch



**25,000 m²**

Total area  
with state-of-the-art technology  
and the latest safety standards



**>200**

Employees  
in 3 different plants



**2**

Production sites  
Einhausen and Warstein



**>1,000**

Active customers



**56%**

Percentage of turnover in  
gloves



**44%**

Percentage of turnover in  
technical rubber goods



**€ 23.5 Mio**

in annual turnover  
2023

# AGENDA

ISO 374-1 / Type A → Standards for protective gloves and permeation resistance of type A, B or C



A B I K L N O T

→ Pictogram for handling chemicals

→ Letters symbolise test chemicals against which the glove has received at least a class 2 protection index

ISO 374-5



VIRUS

→ Standards for protective gloves

→ Pictogram for handling hazardous chemicals and microorganisms

→ to protect against bacteria, fungi and viruses

DIN EN 388



0 1 1 0 X

→ Standards for protective gloves

→ Pictogram for working with mechanical risks

→ Mechanical power levels

- ❶ ISO cut resistance
- ❷ Puncture resistance
- ❸ Tear resistance
- ❹ Cut resistance
- ❺ Abrasion resistance

## ❶ ISO cut resistance

The application of the ISO 13997 test method is relevant for materials that dull the rotating circular blade as part of the Coupe test (see above). The force required to cut through a material over a defined distance (20 mm) is measured (maximum power level F= 30 Newton)

## ❷ Puncture resistance

To test the puncture resistance, the material to be tested is pierced with a nail (specified dimension).

## ❸ Tear resistance

To test the tear resistance, the material of the protective glove is first cut into. The reference value is the force required to then tear the material further. (Highest power level 4 = 75 Newton)

## ❹ Cut resistance

To test the cut resistance of a protective glove, a rotating circular blade is used, which cuts through the glove material at a constant speed and with a constant force. The reference value is the comparison with a reference material and a resulting index. (Highest performance level 5 = index 20)

## ❺ Abrasion resistance

To test the abrasion resistance of the protective glove, the material is rubbed under pressure with sandpaper. The number of cycles required to grind a hole in the material serves as a reference value. (Highest performance level 4 = 8,000 cycles)

EN 16350



→ Standards for protective gloves

→ Pictogram for electrostatic properties

GS-ET-42-1 APC 1



→ Test based on DIN EN 61482-1-2:2015 (4 kA / 300 mm)

→ Pictogram for the thermal effects of an arc fault

### International standards for protective gloves

JUGITEC® gloves are compliant with the PPE Regulation (EU) 2016/425

DIN EN 388	Protection against mechanical risks*
DIN EN ISO 374-1	Protection against chemicals and microorganisms
DIN EN 16350	Electrostatic properties*
DIN EN 60903	Live working - gloves made of insulating material*
DIN EN ISO 21420	General requirements and test methods for protective gloves
GS-ET-42-1	Protection against the thermal effects of an arc fault*
FDA regulations on contact with food (FDA positive list) 21 CFR 177 Indirect Food Additives*	

*\* Please check the product data, depending on the version/polymer of a glove.*

### Certifications

Safety for glovebox and occupational safety



Qualitätsmanagement  
Umweltmanagement  
ISO 9001  
ISO 14001  
[www.dekrosiegel.de](http://www.dekrosiegel.de)



Testing and certification body  
in the DGUV Test European  
notified bodies  
**CE 0299 CE 0121**

**We are available for customer-specific audits**



**DO YOU HAVE ANY  
QUESTIONS OR NEED  
MORE INFORMATION?**

Give us a call or write to us,  
JUNG GUMMITECHNIK is always at your  
disposal.



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## EXPORT AND INTERNATIONAL PRESENCE

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Our gloves enjoy worldwide recognition and are exported to numerous countries. With a strong export ratio, we are represented on all international markets and supply customers in Europe, Asia, North America and other regions. The high standard of our products enables us to remain competitive on a global level and fulfil the requirements of our international customers.

Our presence on the global market goes far beyond mere exports. We regularly take part in trade fairs and specialist conferences to monitor the latest developments and trends in the industry and promote innovation. We are also actively involved in global networks and partnerships in order to continuously expand our influence and expertise in the field of hand protection.

Gloves are indispensable in many industries, from manufacturing to the chemical industry. Our products play a central role in the global supply chain and help to ensure the health and safety of millions of people worldwide.



## SUSTAINABILITY



The company **JUNG GUMMITECHNIK GmbH** has been successfully certified in accordance with environmental management ISO 14001 since 2019. We comply with the applicable local environmental regulations when manufacturing our products and ensure efficient use of raw materials and energy.

In everyone's interest, we want to keep the impact on people and the environment as low as possible and also contribute to optimising environmental friendliness. We support sustainable development.

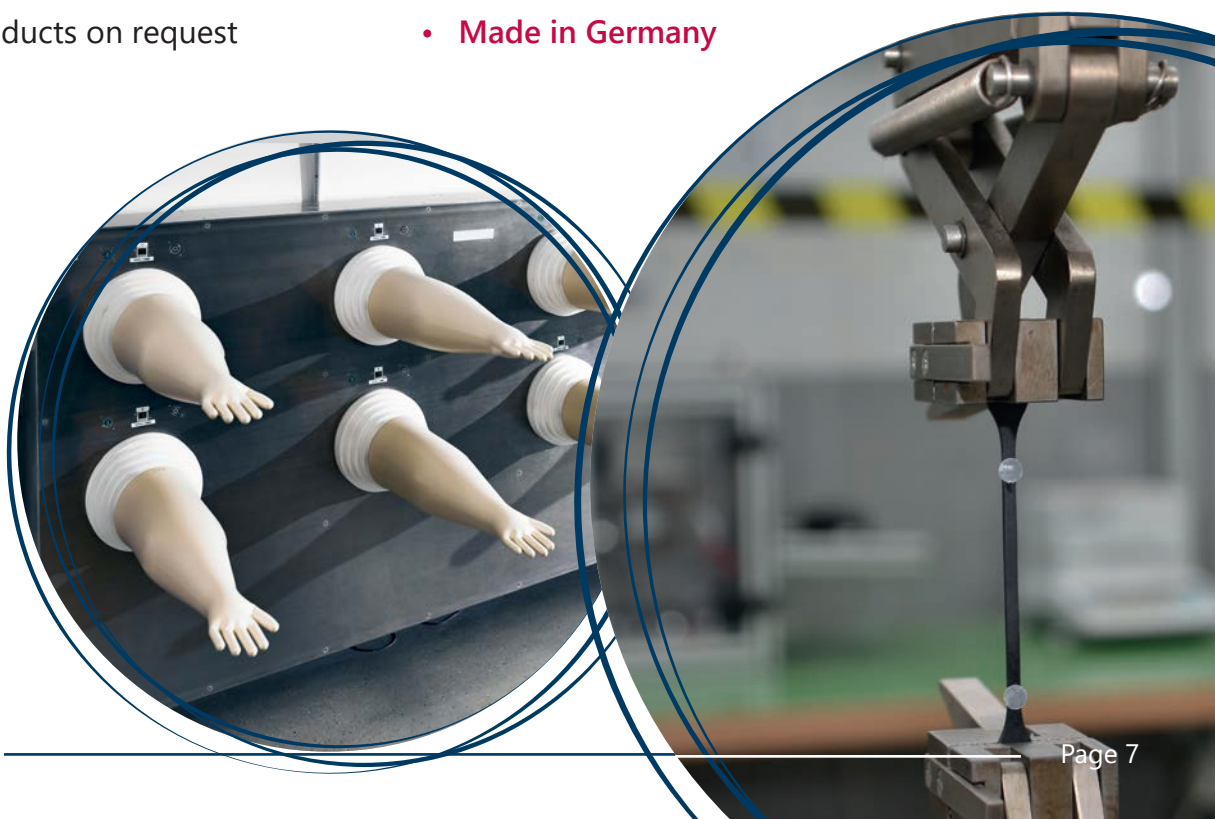
## QUALITY MANAGEMENT

JUNG has been certified to the ISO 9001 quality standard for over thirty years and complies with the officially valid standard. We also take our customers' quality requirements very seriously and deal with requests, requirements and commitments that go beyond the norm - often in connection with customer audits at our plants.

Management also includes in-depth supplier audits, internal audits, process and product audits as well as specific internal and external monitoring of measures on a day-to-day basis.

## WHAT MAKES US SPECIAL

- Use of exclusively latex-free materials
- Seamless, solvent-dipped protective gloves
- Ambidextrous gloves
- Customised products on request
- Consideration of customer-specific audits
- Customer requirements and projects (project work with customers)
- Research & Development of sustainable polymers
- **Made in Germany**

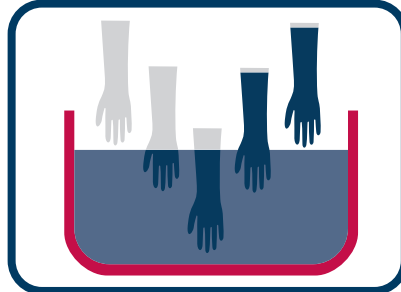


# PRODUCTION PROCESS

## Manufacturing process Chemical resistant gloves



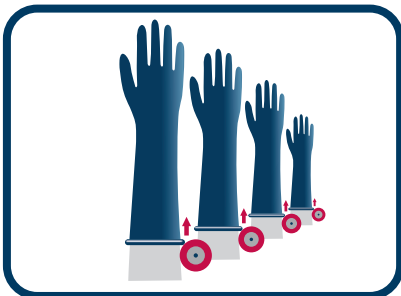
**1 Preparation of the immersion bath:** For preparation, the immersion tank is filled with the required mixture of granulate and solvent. This immersion solution is mixed until a homogeneous solution is obtained.



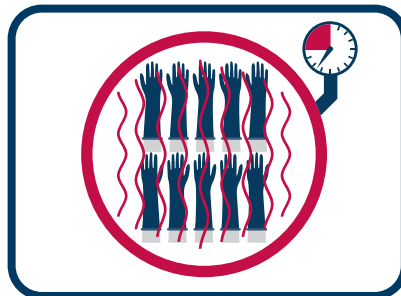
**2 Immersion:** The immersion plant can now be loaded with the appropriate dipping moulds according to the production order. The dip moulds are provided in the required hand size, cuff width and with or without grip profile and are then lowered into the liquid in the immersion tank. This is software-controlled according to the specifications of the respective dipping programme.



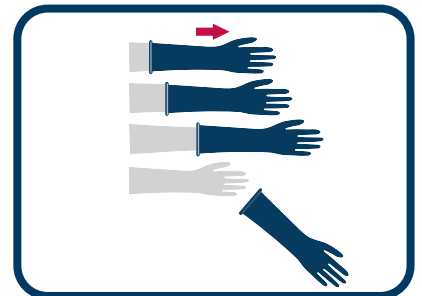
**3 Drying:** After each dipping process, the hand moulds dry in a stream of air, creating a film on the moulds. Dipping and drying are repeated until the desired wall thickness of the gloves has been achieved.



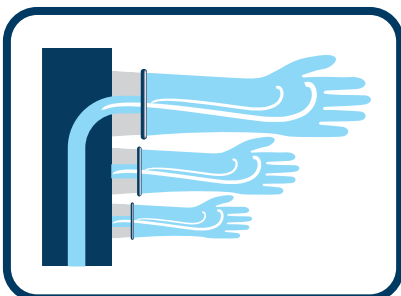
**4 Creating a rolled cuff:** The dried gloves are set up – still on the mould – so that the cuff ends of the gloves can be rolled up manually or by machine. This creates a rolled cuff.



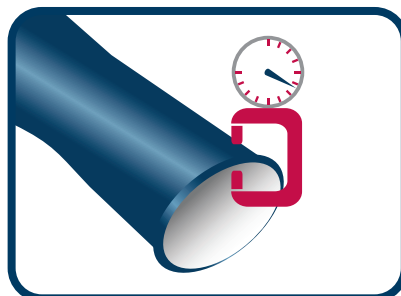
**5 Vulcanisation:** In the next step, the gloves are vulcanised in an autoclave to harden them and completely remove the solvent. This polymerisation process takes place under defined temperature and pressure conditions and a fixed time interval.



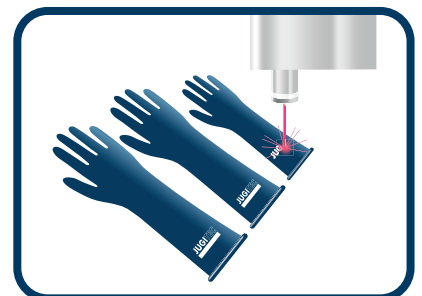
**6 Demoulding:** The gloves are then coated with talcum powder and manually removed from the moulds.



**7 Airtightness test:** The next step is an air leakage test in accordance with the standard. The airtightness of the gloves is checked according to strict quality specifications.



**8 Wall thickness test:** This is followed by a check of the wall thickness and the final quality check for weak points. Gloves that do not fulfil the required criteria are rejected.



**9 Printing and packaging:** In the final step, the gloves are printed in accordance with the standard. This is followed by secure packaging with consumer information, storage or direct transport to the customer.



## AREAS OF APPLICATION / INDUSTRIES

### Gloves












Safety for user and product














With more than 40 years of experience in the development and manufacture of protective gloves, the company has qualified expertise in this segment.

The protection of the product and the safety of the user have top priority in the many different areas of application. For this reason, protective gloves are always manufactured in compliance with strict quality

requirements and current health and safety regulations. In addition, products and production are certified, tested and regularly monitored by independent testing institutes.

The product portfolio includes chemical resistant gloves as well as glovebox and isolator gloves.





OCCUPATIONAL SAFETY					
Chemical protection			Insulating protective gloves		
JUGITEC® B03/05/07		JUGITEC® BV03/BV07	JUGITEC® E		
					
Chemistry	Biology	Laboratories	Electrical	Automobile	Energy sector
					
Automotive industry	Handling of liquids		Machine maintenance	Working under voltage	After Sales

USER AND PRODUCT PROTECTION								
Glovebox - isolator gloves								
JUGITEC® B			JUGITEC® H		JUGITEC® Pharma	JUGITEC® Pharma Plus	JUGITEC® ISOflex	
								
Semiconductor industry	Chemistry	Biology	Nuclear sector	Pharmaceuticals				
								
Laboratories	Nuclear sector	Aerospace	Medical technology	Life Science	Pharmaceuticals	Medical technology	Life Science	



## Bromobutyl rubber (BIIR)

The protective glove **JUGITEC® B** for gloveboxes is ideally suited to the extreme conditions encountered when working with polar hydrocarbons such as ketones, acids, esters and amine derivatives in particular. It also has a particular advantage in terms of its high gas impermeability. Butyl offers high flexibility and a good grip even at low temperatures. Its good temperature resistance also allows it to be used under adverse climatic conditions. The special glove has good electrical discharge properties  $< 10^8 \Omega$ , which prevents electrical charging (with earthed voltage).

<b>Design:</b>	 smooth	
<b>Sizes:</b>	L (9–10) / XL (11)	
<b>Lengths:</b>	800 mm / 920 mm	
<b>Shape:</b>	ambidextrous 	
<b>Material thickness:</b>	 0.4 mm	 0.6 mm

### PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type A



A B I K L N O T

ISO 374-5



VIRUS

DIN EN 388



0 1 1 0 X

EN 16350



### MECHANICAL PROPERTIES

in accordance with EN 388: 2016

Feature	Abrasion resistance	Cut resistance	Tear resistance	Puncture resistance	ISO cut resistance
Protection level	0	1	1	0	X

## MATERIAL PROPERTIES

- Temperature application range: - 40 °C to + 90 °C
- High impermeability to water vapour and gases
- High resistance to a wide range of toxins
- Discharge capability in accordance with EN 16350
- **JUGITEC® B** fulfils the criteria for maximum PAH levels in accordance with AfPS GS 2014:01 PAH

## CHEMICAL RESISTANT

in accordance with EN ISO 374-1: 2016 + A1: 2018





Test chemicals	CAS No.	Protection index
<b>A</b> Methanol	67-56-1	6 (> 480 min)
<b>B</b> Acetone	67-64-1	6 (> 480 min)
<b>I</b> Ethyl acetate	141-78-6	3 (> 60 min)
<b>K</b> Sodium hydroxide 40%	1310-73-2	6 (> 480 min)
<b>L</b> Sulphuric acid 96%	7664-93-9	6 (> 480 min)
<b>N</b> Acetic acid 99%	64-19-7	6 (> 480 min)
<b>O</b> Ammonium hydroxide 25%	1336-21-6	6 (> 480 min)
<b>T</b> Formaldehyde 37%	50-00-0	6 (> 480 min)





## Chlorosulphonated polyethylene (CSM)

The **JUGITEC® H** model for use in gloveboxes offers exceptional resistance to oxygen, ozone ageing, UV radiation, heat and chemical products. It is recommended for working with oxidising products, concentrated nitric acid, concentrated hydrochloric acid, ammonia, concentrated alkalis and alcohols.

<b>Design:</b>	 smooth	
<b>Sizes:</b>	L (9–10) / XL (11)	
<b>Lengths:</b>	800 mm / 920 mm	
<b>Shape:</b>	ambidextrous 	
<b>Material thickness:</b>	 0.4 mm	 0.6 mm

### PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type B



A K L P

ISO 374-5: 2016



VIRUS

DIN EN 388



1 1 1 1 X

### MECHANICAL PROPERTIES

in accordance with EN 388: 2016

Feature	Abrasion resistance	Cut resistance	Tear resistance	Puncture resistance	ISO cut resistance
Protection level	1	1	1	1	X

## MATERIAL PROPERTIES

- Temperature application range: - 20°C to + 120°C
- Ozone and weather resistant
- Very good resistance to many oxidising chemicals
- High gas impermeability

## CHEMICAL RESISTANT

in accordance with EN ISO 374-1: 2016 + A1: 2018





Test chemicals	CAS No.	Protection index
<b>A</b> Methanol	67-56-1	4 (> 120 min)
<b>K</b> Sodium hydroxide 40%	1310-73-2	6 (> 480 min)
<b>L</b> Sulphuric acid 96%	7664-93-9	6 (> 480 min)
<b>P</b> Hydrogen peroxide 30%	7722-84-1	6 (> 480 min)





## Ethylene propylene diene rubber (EPDM)

This glovebox glove guarantees safety in the pharmaceutical and life science sector. The **JUGITEC® Pharma** provides the user with a high level of wearing comfort and thus delivers very good tactile sensitivity. The model's ingredients comply with the current FDA positive list, which applies to the criteria of the pharmaceutical, medical and food markets. Thanks to its good electrical discharge capability of  $< 10^6 \Omega$ , the glove is also suitable for Ex-applications. The **JUGITEC® Pharma** has very good steam sterilisability. Sterilisation tests have proven that the glove neither sticks together nor is there any negative effect on permeation.

<b>Design:</b>	 smooth	
<b>Sizes:</b>	L (9-10) / XL (11)	
<b>Lengths:</b>	800 mm / 920 mm	
<b>Shape:</b>	ambidextrous 	
<b>Material thickness:</b>	 0.4 mm	 0.6 mm

### PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type C



P

ISO 374-5: 2016



VIRUS

DIN EN 388



2 0 1 0 X

### MECHANICAL PROPERTIES

in accordance with EN 388: 2016

Feature	Abrasion resistance	Cut resistance	Tear resistance	Puncture resistance	ISO cut resistance
Protection level	2	0	1	0	X



## MATERIAL PROPERTIES

- Temperature application range: - 20°C to +130°C
- Ingredients of the base polymer correspond to the FDA positive list
- Resistant to hydrogen peroxide solutions and most common disinfectant chemicals
- UV light and weather resistance
- Halogen-free, making disposal at incineration plants possible
- Electrically conductive  $< 10^6 \Omega$ , therefore no electrostatic charging (with earthed voltage)

## CHEMICAL RESISTANT

in accordance with EN ISO 374-1: 2016 + A1: 2018

### Test chemicals

### Protection index

**P** Hydrogen peroxide 30%




6 (> 480 min)





## Ethylene propylene diene rubber (EPDM)

The **JUGITEC® Pharma PLUS** glove offers reliable protection for hands and arms in the pharmaceutical industry and other areas of application such as the food industry. It is used as a glove-box glove and consists of a black user side and a white product side, which makes external damage easily recognisable. It also has very good steam sterilisability without sticking or negative effects on permeation.

<b>Design:</b>	 smooth
<b>Sizes:</b>	L (9–10) / XL (11)
<b>Lengths:</b>	800 mm / 920 mm
<b>Shape:</b>	ambidextrous 
<b>Material thickness:</b>	 0.5 mm

### PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type C



P

ISO 374-5: 2016



VIRUS

DIN EN 388



1 000 X

### MECHANICAL PROPERTIES

in accordance with EN 388: 2016

Feature	Abrasion resistance	Cut resistance	Tear resistance	Puncture resistance	ISO cut resistance
Protection level	1	0	0	0	X

## MATERIAL PROPERTIES

- Temperature application range: - 20 °C to + 130 °C
- The ingredients of the base polymer comply with the FDA positive list, unlike other Glovebox gloves
- Resistant to hydrogen peroxide solutions and most common disinfectant chemicals
- UV light and weather resistance
- Halogen-free, making disposal at incineration plants possible
- Black user side, light-coloured product side Pharma

## CHEMICAL RESISTANT

in accordance with EN ISO 374-1: 2016 + A1: 2018

### Test chemicals

### Protection index

**P** Hydrogen peroxide 30%




6 (> 480 min)





## XSBR elastomer

The **JUGITEC® ISOflex** is a special glove made of XSBR elastomer. The ingredients of the special glove comply with the current FDA positive list, which applies to the criteria of both the pharmaceutical, medical and food markets. This glovebox variant offers the user a particularly high level of comfort due to the material properties and provides very good tactile sensitivity. The glove is primarily used in the pharmaceutical industry for working with isolator technology.

<b>Design:</b>	 smooth
<b>Sizes:</b>	L (9–10) / XL (11)
<b>Lengths:</b>	800 mm / 920 mm
<b>Shape:</b>	ambidextrous 
<b>Material thickness:</b>	 0.5 mm

## PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type C



P

ISO 374-5: 2016



VIRUS

DIN EN 388



10 X 1 X

## MECHANICAL PROPERTIES

in accordance with EN 388: 2016

Feature	Abrasion resistance	Cut resistance	Tear resistance	Puncture resistance	ISO cut resistance
Protection level	1	0	X	1	X

## MATERIAL PROPERTIES

- Temperature application range: -20°C to +80°C
- Resistance to hydrogen peroxide and isopropanol
- Ingredients of the base polymer in accordance with the FDA positive list

- Latex-free
- Highly flexible and good mechanical properties
- Good ageing and ozone resistance

## CHEMICAL RESISTANT

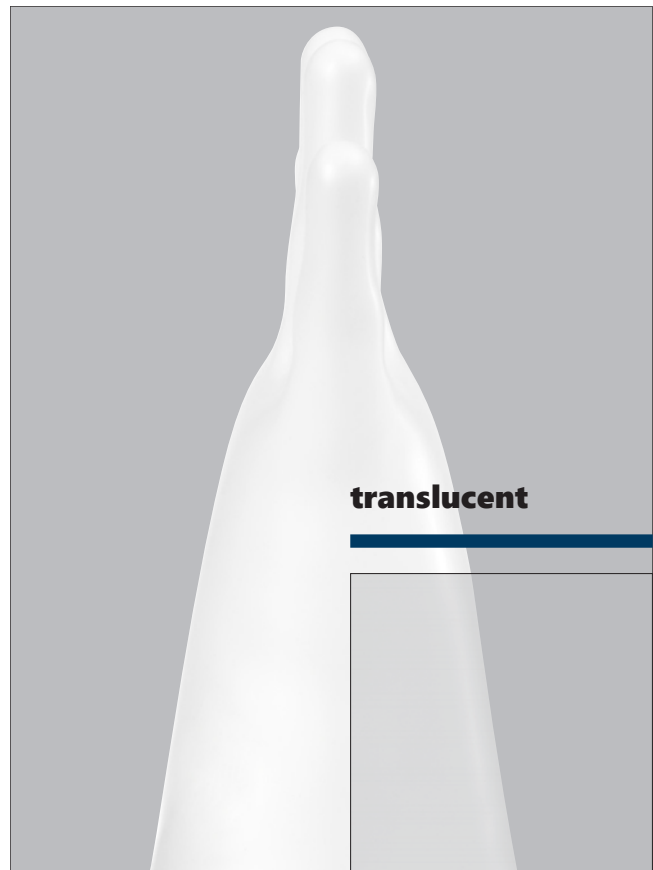
in accordance with EN ISO 374-1: 2016 + A1: 2018

### Test chemicals

### Protection index

**P** Hydrogen peroxide 30%

6 (> 480 min)





## Bromobutyl rubber (BIIR)

The protective work glove **JUGITEC® B** is ideal for extreme conditions, particularly when working with polar hydrocarbons such as ketones, esters, aldehydes, amines and also acids, bases (alkalis) and salt solutions. It also has a particular advantage in terms of its high gas impermeability. Butyl offers high flexibility and a good grip even at low temperatures. Its good temperature resistance also allows it to be used under adverse climatic conditions. The special glove has good electrical discharge properties  $< 10^8 \Omega$ , which prevents electrical charging (with earthed voltage).

<b>Design:</b>	smooth or  roughened				
<b>Sizes:</b>	7	8	9	10	11
<b>Lengths:</b>	350 mm				
<b>Shape:</b>	fully anatomical				
<b>Material thickness:</b>	0.3 mm	0.5 mm	0.7 mm		

### PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type A



A B I K L N O T

ISO 374-5



VIRUS

EN 16350



### MATERIAL PROPERTIES

- Temperature application range: - 40°C to +90°C
- High impermeability to water vapour and gases
- High resistance to a wide range of toxins
- Discharge capability in accordance with EN 16350
- The **JUGITEC® B** 03/05/07 fulfils the criteria for maximum PAH levels in accordance with AfPS GS 2014:01 PAH
- The **JUGITEC® B** 05 is tested against mustard gas as a representative skin warfare agent and against sarin as a representative nerve agent



**CHEMICAL RESISTANT**

in accordance with EN ISO 374-1: 2016 + A1: 2018





Test chemicals	CAS No.	Protection index
<b>A</b> Methanol	67-56-1	6 (> 480 min)
<b>B</b> Acetone	67-64-1	5 (> 240 min)
<b>I</b> Ethyl acetate	141-78-6	2 (> 30 min)
<b>K</b> Sodium hydroxide 40%	1310-73-2	6 (> 480 min)
<b>L</b> Sulphuric acid 96%	7664-93-9	4 (> 120 min)
<b>N</b> Acetic acid 99%	64-19-7	6 (> 480 min)
<b>O</b> Ammonium hydroxide 25%	1336-21-6	6 (> 480 min)
<b>T</b> Formaldehyde 37%	50-00-0	6 (> 480 min)





## Bromobutyl rubber (BIIR) with Viton® coating (FKM)

The versatile chemical protective glove **JUGITEC® BV** consists of a butyl base layer and a Viton® coating. The Viton® outer layer is resistant to aliphatic and aromatic hydrocarbons (hexane, benzene, toluene, xylene and others), halogenated hydrocarbons (trichloroethylene, perchloroethylene, methylene chloride and many others), organic and inorganic acids, bases (alkalis) and saturated salt solutions. The butyl layer offers protection when working with polar hydrocarbons such as esters and ketones. The model has good resistance to ageing and ozone while at the same time being highly impermeable to gases. The protective work glove is primarily used in the chemical industry, laboratories and also in the field of disaster control. Thanks to its high temperature resistance and resistance to many oils, organic solvents and oxidising chemicals, the glove's field of application is flexible and versatile.

<b>Design:</b>	 smooth				
<b>Sizes:</b>	7	8	9	10	11
<b>Lengths:</b>	300 mm / 350 mm				
<b>Shape:</b>	fully anatomical 				
<b>Material thickness:</b>	 0.3 mm		 0.7 mm		

### PROTECTION AGAINST MICROORGANISMS

in accordance with EN ISO 374-5: 2016

Glove for protection against bacteria, fungi and viruses. The resistance to penetration was assessed under laboratory conditions and refers exclusively to the tested samples.

ISO 374-1 / Type A



A F K L M N O T

ISO 374-5



VIRUS

## MATERIAL PROPERTIES

- Temperature application range: - 20°C to +90°C
- Resistant to oils, many solvents and oxidising chemicals
- Very high gas impermeability, e.g. water vapour
- Combination of butyl and Viton® coating protects against both hydrocarbons (BIIIR) and aromatic solvents (FKM)

## CHEMICAL RESISTANT

in accordance with EN ISO 374-1: 2016 + A1: 2018




Test chemicals	CAS No.	Protection index
<b>A</b> Methanol	67-56-1	6 (> 480 min)
<b>F</b> Toluene	108-88-3	6 (> 480 min)
<b>K</b> Sodium hydroxide 40%	1310-73-2	6 (> 480 min)
<b>L</b> Sulphuric acid 96%	7664-93-9	6 (> 480 min)
<b>M</b> Nitric acid 65%	7697-37-2	6 (> 480 min)
<b>N</b> Acetic acid 99%	64-19-7	6 (> 480 min)
<b>O</b> Ammonium hydroxide 25%	1336-21-6	6 (> 480 min)
<b>T</b> Formaldehyde 37%	50-00-0	6 (> 480 min)





## Insulating protective glove

The newly developed protective glove **JUGITEC® E** made of TPE has been specially designed for protection against electrical risks and for use when working under voltage. The glove is compliant with EN 60903:2003 and IEC 60903:2014 and is classified as category III personal protective equipment. The material used has very good mechanical properties, ensuring a long service life with low wear. The fully anatomical shape and the enormous flexibility of the material enable excellent tactility and a comfortable feel.

<b>Design:</b>	 smooth or  roughened			
<b>Sizes:</b>	8	9	10	11
<b>Lengths:</b>	280 mm / 360 mm			
<b>Shape:</b>	fully anatomical 			

### WORKING UNDER VOLTAGE

gloves made of insulating material

Protection class	Material thickness	Categories	Max. Working voltage
00	0.50 mm	A, C, Z*	500 Volt
00	0.75 mm	A, C, Z*	500 Volt
0	1.00 mm	R, C*	1000 Volt

\* A: resistant to acids, C: resistant to extremely low temperatures, Z: resistant to ozone, R: resistant to acid, oil and ozone



EN 60903:2003  
IEC 60903:2014

CE 0161

### REPEAT TESTING

For class 00 and 0 gloves, a leak test by inflating the gloves and visual inspection before each use is sufficient. An electrical routine test is optional.

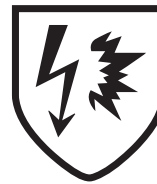


## MATERIAL PROPERTIES

- allergen-free
- roughened non-slip surface
- good ageing and ozone resistance
- Temperature application range: - 20°C to + 50°C
- recyclable
- Low CO<sub>2</sub> production

## ARC FAULT PROTECTION

Protection class	Material thickness	Undergloves required
00	0.50 mm	Yes
00	0.75 mm	No
0	1.00 mm	No



**GS-ET-42-1 APC 1**  
(4 kA / 300 mm)

Testing in accordance with  
DIN EN 61482-1-2:2015



## FINE KNIT GLOVES

- 100% cotton
  - moisture-absorbing
  - allergen-free
  - skin-friendly
  - perfect fit
- Sizes:** 8 / 9 / 10 / 11



# GLOVE VARIANTS

	GLOVEBOX AND ISOLATOR GLOVES				
JUGITEC®	B	H	Pharma	Pharma PLUS	ISOflex
	Bromobutyl rubber (BIIR)	Chlorosulphonated polyethylene (CSM)	Ethylene-propylene-diene rubber (EPDM)		XSBR elastomer
MATERIAL PROPERTIES					
Temperature resistance	-40°C to +90°C	-20°C to +120°C	-20°C to +130°C	-20°C to +130°C	-20°C to +80°C
Impermeability of water vapour	✓	✓	✓	✓	
Latex-free	✓	✓	✓	✓	✓
Gas impermeability	✓	✓			
Discharge capability in accordance with EN 16350	✓		✓		
FDA compliant			✓	✓	✓
Resistance to ...					
... Toxins	✓	✓	✓	✓	
... Alkalis and acids	✓	✓	✓	✓	
... polar KWS* e.g. esters and ketones	✓				
... UV light and ozone	✓	✓	✓	✓	✓
... non-polar KWS* and aromatics		✓			
... halogenated KWS*					
... Hydrogen peroxide	✓	✓	✓	✓	✓
... Oils / greases					
... Disinfectants	✓	✓	✓	✓	✓
... oxidising chemicals	✓	✓	✓	✓	✓
CHEMICAL RESISTANCE (performance levels) in accordance with EN ISO 374-1:2016 + A1:2018					
A Methanol	6 (>480 min)	4 (>120 min)	3 (>60 min)	3 (>60 min)	5 (>240 min)
B Acetone	6 (>480 min)	N.T.			
C Acetonitrile	6 (>480 min)	N.T.			
D Dichloromethane	0 (<10 min)	N.T.			
E Carbon disulphide	0 (<10 min)	N.T.			
F Toluene	0 (<10 min)	N.T.			
G Diethylamine	0 (<10 min)	N.T.			
H Tetrahydrofuran	0 (<10 min)	N.T.			
I Ethyl acetate	3 (>60 min)	N.T.			
J n-heptane	0 (<10 min)	N.T.			
K Sodium hydroxide 40%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)
L Sulphuric acid 96%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)
M Nitric acid 65%	6 (>480 min)	N.T.			
N Acetic acid 99%	6 (>480 min)	N.T.			
O Ammonium hydroxide 25%	6 (>480 min)	N.T.			
P Hydrogen peroxide 30%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)
T Formaldehyde 37%	6 (>480 min)	N.T.	6 (>480 min)	6 (>480 min)	N.T.
MECHANICAL PROPERTIES (performance levels) in accordance with EN388:2016 + A1:2018					
Abrasion resistance	0	1	2	1	1
Cut resistance	1	1	0	0	0
Tear resistance	1	1	1	0	X
Puncture resistance	0	1	0	0	1
ISO cut resistance	X	X	X	X	X


Special gloves with focus on product protection – please contact us if you have any further questions.

Special gloves with focus on product protection – please contact us if you have any further questions.

\*KWS - Hydrocarbons, N.T. - not tested



## GLOVE VARIANTS

	GLOVEBOX AND ISOLATOR GLOVES				
JUGITEC®	B	H	Pharma	Pharma PLUS	ISOflex
	Bromobutyl rubber (BIIR)	Chlorosulphonated polyethylene (CSM)	Ethylene-propylene-diene rubber (EPDM)		XSBR elastomer
DESIGN					
smooth	✓	✓	✓	✓	✓
SIZES					
L	✓	✓	✓	✓	✓
XL	✓	✓	✓	✓	✓
STANDARD LENGTHS					
800 mm	✓	✓	✓	✓	✓
920 mm	✓	✓	✓	✓	✓
FORM					
ambidextrous	✓	✓	✓	✓	✓
MATERIAL THICKNESS					
0.4 mm	✓	✓	✓		
0.5 mm				✓	✓
0.6 mm	✓	✓	✓		
GAUNTLET DIAMETER					
	Depending on hand size, different gauntlet diameters between Ø 145 mm and Ø 300 mm are available. Use our glove configurator to effortlessly find your favourite model. Simply click through the features details in the menu bar under: <a href="https://konfigurator.jung-gt.de">https://konfigurator.jung-gt.de</a> <b>Special sizes on request!</b>				
ADDITIONAL PROPERTIES					
Gamma irradiation	N/A	○○●	●●●	●●●	●●●
Autoclave sterilisation	N/A	○○●	●●●	●●●	Not suitable
VHP / H2O2 absorption desorption	N/A	●●●	●●●	●●●	●●●

3 points = Excellent • 2 points = Well suited • 1 point = Limited suitability • 0 points = Unsuitable



Use our glove sleeve system to combine the protective gloves with the matching gauntlets.

Protect your glove port with the matching cover cap.



# GLOVE VARIANTS

	CHEMICAL PROTECTION					
JUGITEC®	B 03	B 05	B 07	BV 03	BV 07	H
	Bromobutyl rubber (BIIR)			Butyl-Viton® (BIIR / FKM)		Chlorosulphonat- ed polyethylene (CSM)
MATERIAL PROPERTIES						
Temperature resistance	-40°C to+90°C	-40°C to+90°C	-40°C to+90°C	-20°C to+90°C	-20°C to+90°C	-20°C to+120°C
Impermeability of water vapour	✓	✓	✓	✓	✓	✓
Latex-free	✓	✓	✓	✓	✓	✓
Gas impermeability	✓	✓	✓	✓	✓	✓
Resistance to ...						
... Toxins	✓	✓	✓	✓	✓	✓
... Alkalis and acids	✓	✓	✓	✓	✓	✓
... polar KWS* e.g. esters and ketones	✓	✓	✓	✓	✓	
... UV light and ozone	✓	✓	✓	✓	✓	✓
... non-polar KWS* and aromatics				✓	✓	(✓)
... halogenated KWS*				✓	✓	
... Hydrogen peroxide	✓	✓	✓	✓	✓	✓
... Oils / greases				✓	✓	
... Disinfectants	✓	✓	✓	✓	✓	✓
... oxidising chemicals	✓	✓	✓	✓	✓	✓
CHEMICAL RESISTANCE (performance level) in accordance with EN ISO 374-1:2016 + A1:2018						
A Methanol	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	4 (>120 min)
B Acetone	5 (>240 min)	6 (>480 min)	6 (>480 min)	4 (>120 min)	6 (>480 min)	N.T.
C Acetonitrile	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	N.T.
D Dichloromethane	0 (<10 min)	0 (<10 min)	0 (<10 min)	3 (>60 min)	3 (>60 min)	N.T.
E Carbon disulphide	0 (<10 min)	0 (<10 min)	0 (<10 min)	N.T.	N.T.	N.T.
F Toluene	0 (<10 min)	0 (<10 min)	0 (<10 min)	6 (>480 min)	6 (>480 min)	N.T.
G Diethylamine	0 (<10 min)	0 (<10 min)	0 (<10 min)	N.T.	N.T.	N.T.
H Tetrahydrofuran	0 (<10 min)	0 (<10 min)	0 (<10 min)	N.T.	N.T.	N.T.
I Ethyl acetate	2 (>30 min)	4 (>120 min)	5 (>240 min)	N.T.	N.T.	N.T.
J n-heptane	0 (<10 min)	0 (<10 min)	0 (<10 min)	6 (>480 min)	6 (>480 min)	N.T.
K Sodium hydroxide 40%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)
L Sulphuric acid 96%	4 (>120 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)
M Nitric acid 65%	4 (>120 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	N.T.
N Acetic acid 99%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	N.T.
O Ammonium hydroxide 25%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	N.T.
P Hydrogen peroxide 30%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)
T Formaldehyde 37%	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	6 (>480 min)	N.T.
MECHANICAL PROPERTIES (performance level) in accordance with EN388:2016 + A1:2018						
Abrasion resistance	0	2	1	1	2	3
Cut resistance	0	0	1	1	1	1
Tear resistance	1	1	1	1	1	0
Puncture resistance	0	0	1	0	1	1
ISO cut resistance	X	X	X	X	X	X

\*KWS - Hydrocarbons, N.T. - not tested  
(✓) - Suitable with restrictions



## GLOVE VARIANTS

	CHEMICAL PROTECTION						
JUGITEC®	B 03	B 05	B 07	BV 03	BV 07	H	
	Bromobutyl rubber (BIIR)			Butyl-Viton® (BIIR / FKM)		Chlorosulphonated polyethylene (CSM)	
DESIGN							
smooth	✓	✓	✓	✓	✓	JUGITEC® H only on request	
roughened	✓	✓	✓				
SIZES							
7 / 8 / 9 / 10 / 11	✓	✓	✓	✓	✓		
LENGTHS							
300 mm				✓			
350 mm	✓	✓	✓		✓		
FORM							
fully anatomical	✓	✓	✓	✓	✓		
MATERIAL THICKNESS*							
0.3 mm	✓			✓			
0.5 mm		✓					
0.7 mm			✓		✓		

\* Other wall thicknesses on request

JUGITEC®	INSULATING PROTECTIVE GLOVES		
	E - Class 00	E - Class 00	E - Class 0
Temperature resistance	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Allergen-free	✓	✓	✓
Max. Operating voltage [V] (alternating current)	500	500	1000
Category	A, C, Z*	A, C, Z*	R, C*
Complies with EN 60903/IEC 60903	✓	✓	✓
Arc fault protection in accordance with GS-ET-42-1 APC 1 (4 kA/300mm)	Only in combination with an underglove	yes	yes
Design	smooth, roughened	smooth, roughened	smooth, roughened
Sizes	8, 9, 10, 11	8, 9, 10, 11	8, 9, 10, 11
Lengths	280 mm, 360 mm	280 mm, 360 mm	280 mm, 360 mm, 410 mm
Form	fully anatomical	fully anatomical	fully anatomical
Material thickness	0.5 mm	0.75 mm	1.0 mm

\*A: Resistant to acid, H: Resistant to oil, Z: Resistant to ozone, R: Resistant to acid, oil and ozone,  
C: Resistant to extremely low temperatures

# ACCESSORIES FOR JUGITEC® GLOVEBOX PROTECTIVE GLOVES

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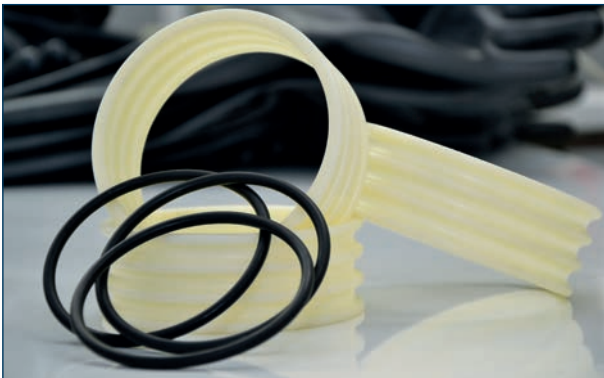
## Customised equipment for all areas of application

Our JUGITEC® gloves are subject to strict regulations and fulfil all necessary regulations, norms and standards.



### Mounting rings

Depending on the installation, mounting rings are required for glovebox gloves and glove sleeve systems. The so-called O-rings can be supplied on request. They are made of EPDM, in accordance with the FDA positive list.



### Adapter rings

When using our glove sleeve system, you will need adapter rings to attach the gloves to the gauntlet. These are also supplied by us accordingly. You can choose between a 3-groove design made of plastic or metal. The design ensures secure fitting between glove and gauntlet by means of a rolled cuff and O-ring.



### Cover caps

In some cases, glove ports must be covered with caps after use. We supply cover caps in diameters of 180 mm and 230 mm/9" (oval) made of ethylene propylene diene rubber (EPDM in accordance with FDA positive list). Like the gloves, they have a rolled cuff for easy and secure fitting.



**HOSES &  
HOSE SECTIONS**



**MOULDED HOSES**



**MOULDED PARTS**



**PROTECTIVE  
GLOVES**



**GLOVEBOX  
AND ISOLATOR  
GLOVES**

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