OBO Bettermann KVM-P Two Component Cold Casting Compound Instruction Manual

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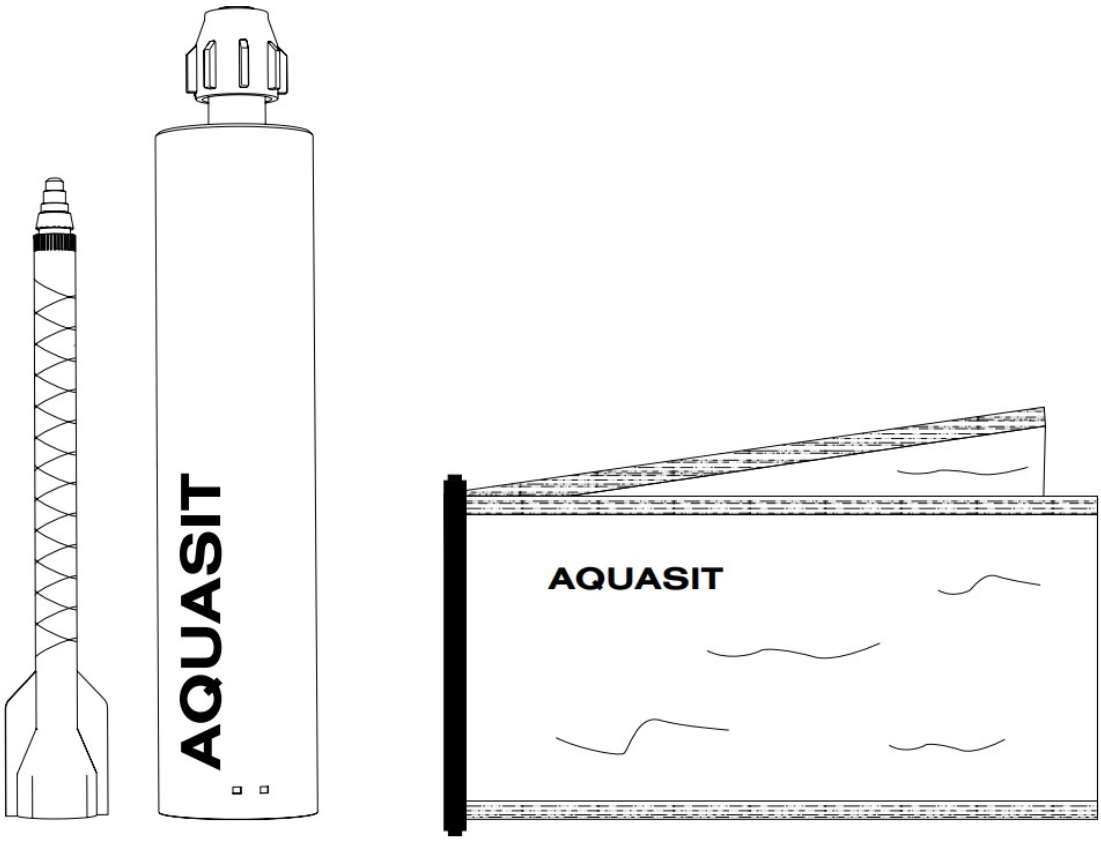
Contents

KVM-P Two Component Cold Casting Compound



Two-component cold casting compound
Mounting instructions
Building Connections

AQUASIT Two-component cold casting compound Mounting instructions
Mounting instructions in further languages can be found at **www.obo-bettermann.com**

About these instructions

1.1 Target group
These instructions are intended for electricians.
1.2 Relevance of these instructions
– These instructions are based on the standards valid at the time of compilation (September 2022).
– We will not accept any warranty claims for damage caused through non-observance of these instructions.
– Any images are intended merely as examples. Processing results may look different.
1.3 Types of safety information

ATTENTION

Type of risk!
Shows a hazardous situation. If the safety instruction is not observed, then damage to the product or the surroundings may occur.
Note! Indicates important information or assistance.
1.4 Correct use
AQUASIT is intended for the protection of electrical installations against moisture in the interior of junction boxes. It is suitable for temperatures between –40 and 80 °C in indoor and outdoor areas.
AQUASIT is not designed for any other purpose than the one described here. If AQUASIT is used for another purpose, any liability, warranty or damage claims shall be rendered null and void.
1.5 Applicable documents
– Safety data sheet, AQUASIT component A (resin)
– Safety data sheet, AQUASIT component B (hardener)

– Declaration of conformity of AQUASIT KVM cartridge

General safety information

Observe the following general safety information:
– Follow applicable working, accident and environmental protection regulations.
– Observe the basic precautionary measures for handling chemicals.
– Observe the safety data sheets of the components, which can be obtained online at www.obo-bettermann.com.

Information on the product

3.1 Product description

AQUASIT is a cold casting compound consisting of two components.
It protects electrical installations in junction boxes to a protection rating of IP68 against dust, contact and continuous immersion in water. AQUASIT can be used with all standard installation cables. When processed, AQUASIT retains an elastic consistency, allowing checking of the connections. Damage to the sealing compound caused by standard testing pins close automatically.

3.2 Conditions of use

The following conditions must be fulfilled for the use of AQUASIT:
– AQUASIT may only be processed in a dry environment and on a dry substrate.
– To prevent the ingress of water and foreign bodies into the junction box, the junction box must be fully filled with AQUASIT.
– AQUASIT should only be used in junction boxes with a protection rating of IP55 or higher. With junction boxes of a lower protection rating, the material may leak out.

3.3 Storage

In the closed original aluminium bag, AQUASIT can be stored in a dry environment at 0 to 40 °C for up to 18 months after the production date. The date of expiry can be found on the labelling on the package.

3.4 Product overview

AQUASIT is available in a two-chamber cartridge or a mixing bag with closing strip in the following sizes:

	Type	Item no.	Fill amount (ml)
Cartridge	KVM 250	2363 044	250
Mixing bag	KVMM 250	2363 030	250
	KVMM 400	2363 032	400
	KVMM 800	2363 034	800
	KVMM 1600	2363 036	1,600

Tab. 1: AQUASIT packaging units

Necessary material quantities

The actual material consumption is dependent on the junction box type and the volume of cables within. The guide values listed below for the required amount of sealing compound relate to an actual cable assignment.

Series	Type	Required number			
		Cartridge KVM 2 50	Mixing bag KVM M 400	Mixing bag KVM M 800	Mixing bag KVM M 1600
A series	A 6	0.4	0.2	0.1	0.1
	A 8	0.5	0.3	0.2	0.1
	A 11	0.8	0.5	0.2	0.1
	A 14	1.2	0.7	0.4	0.2
	A 18	1.5	1.0	0.5	0.2
B series	B 9T	1.6	1.0	0.5	0.2
T series	T 25	0.7	0.4	0.2	0.1
	T 40	1.0	0.7	0.4	0.2
	T 60	1.7	1.1	0.5	0.3
	T 60HD	2.4	1.5	0.7	0.4
	T 100	3.1	1.9	1.0	0.5
	T 100HD	3.1	1.9	1.0	0.5
	T 160	6.2	3.9	1.9	1.0
	T 160HD	7.7	4.8	2.4	1.2
	T 250	12.7	7.9	4.0	2.0
	T 250HD	13.2	8.3	4.1	2.1
	T 350	20.8	13.0	6.5	3.3
	T 350HD	27.3	17.1	8.5	4.3
X series	X 01	1.2	0.8	0.4	0.2
	X 02	1.5	0.9	0.5	0.2
	X 04	2.3	1.5	0.7	0.4
	X 06	3.8	2.3	1.2	0.6
	X 10	10.4	6.5	3.3	1.6
	X 16	17.6	11.0	5.5	2.7
	X 25	27.4	17.1	8.6	4.3

Tab. 2: Guide values of the necessary material amounts for different OBO junction

3.4.1 AQUASIT cartridge

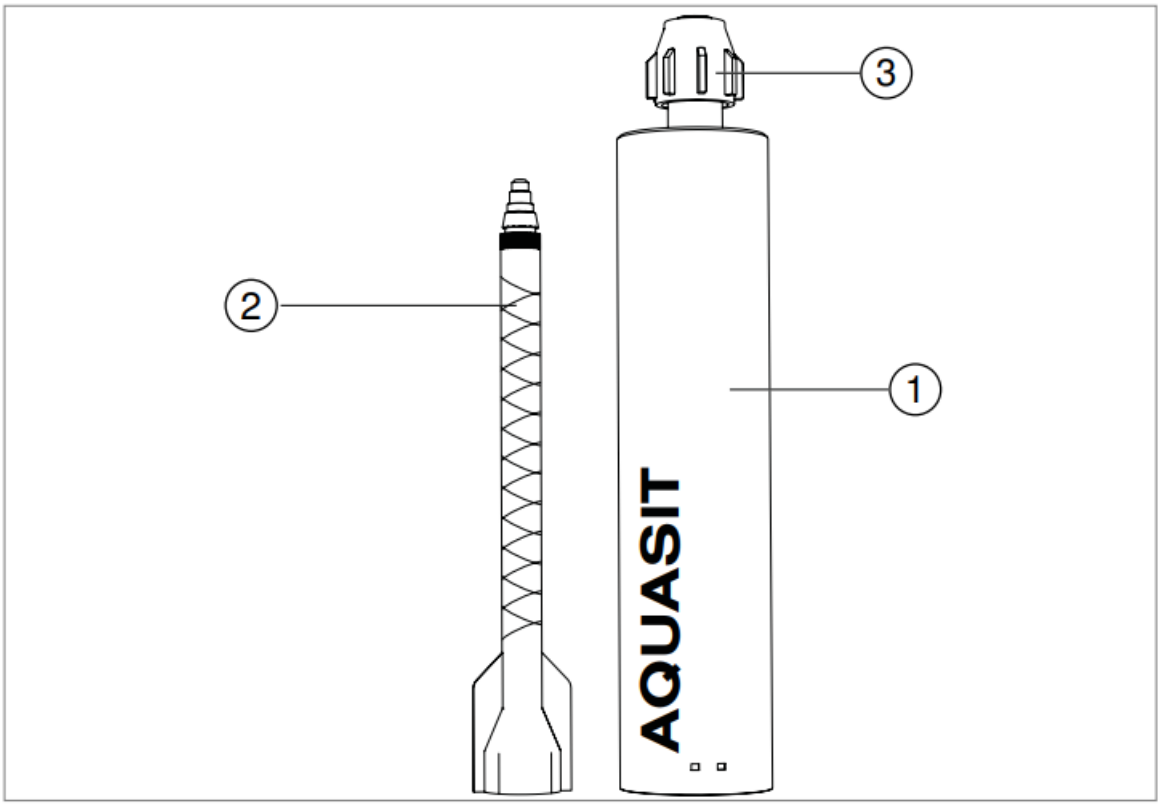


Fig. 11: Component parts of a packing unit

– 1 Cartridge
– 2 Mixer pipe
– 3 Lid with plug
The sealing compound consists of two components:
– Component A (resin): Modified hydrocarbon resin
– Component B (hardener): Modified polybutadiene polymer Necessary and expanding accessories
The following accessories can be purchased for the cartridge:
– Cartridge pistol (Item no. 2363 019)
– Mixer pipe, 10 units in a set (Item no. 2363 015)
A cartridge pistol is necessary for processing AQUASIT. All standard single-component cartridge pistols can be used for processing.
It is wise to obtain additional mixer pipes if the processing length for a cartridge is longer than 20 minutes, e.g. if many small amounts of AQUASIT are to be processed.

3.4.2 AQUASIT mixing bag

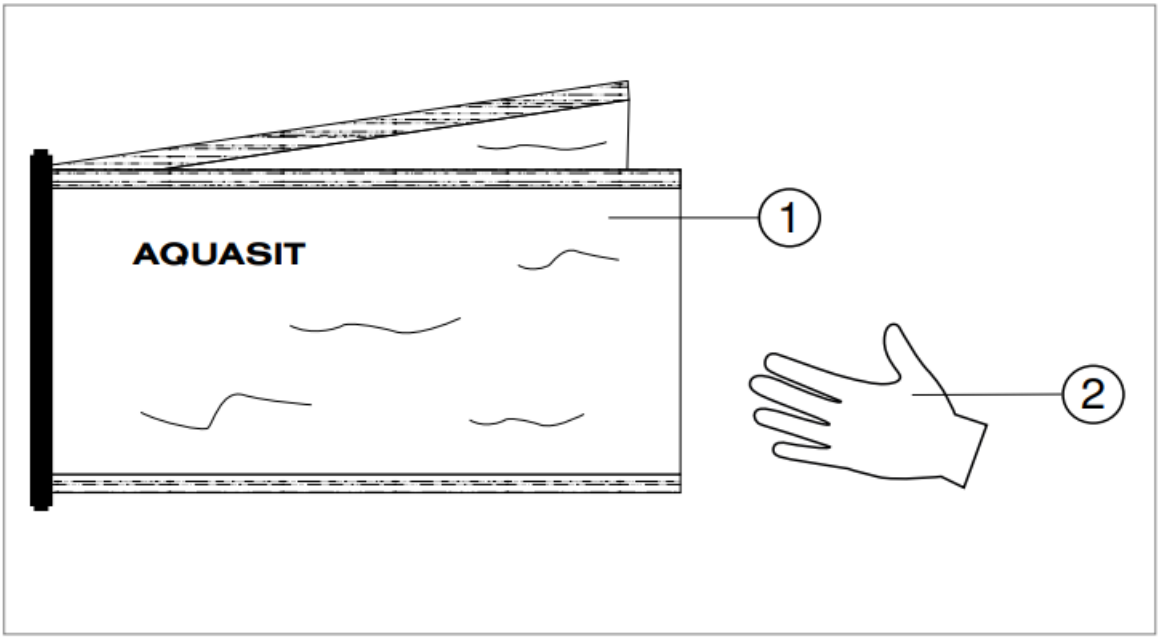


Fig. 12: Component parts of a packing unit

– 1 Mixing bag
– 2 Protective gloves
The sealing compound consists of two components:
– Component A (resin): Modified hydrocarbon resin
– Component B (hardener): Modified polybutadiene polymer

Processing the casting compound

ATTENTION

Function loss through moisture!
Moisture damages liquid AQUASIT. The sealing compound does not dry out.
Until use, keep AQUASIT in the original packaging. Only process it in a dry environment and on a dry substrate.
ATTENTION
Function loss through extreme temperatures!
AQUASIT becomes unusable if it used outside the use temperature of –40 to 80 °C. Observe the use temperature.
ATTENTION
Risk of short circuiting through incomplete filling!
Exposed cables are not protected against moisture. When the cables come into contact with water, this can lead to corrosion and a short circuit.
Completely fill junction boxes with AQUASIT.
ATTENTION
Contamination of surfaces through liquid AQUASIT!
Drops of liquid AQUASIT leave permanent marks on unsealed surfaces (such as stone). If you spill AQUASIT onto a surface, remove immediately with a cloth. You can remove leftover marks using isopropanol if necessary. Check that isopropanol is compatible with your surface before you use it by testing it on an inconspicuous area. Cover sensitive areas before commencing work.
4.1 Processing the AQUASIT cartridge
Note! AQUASIT can be processed over a period of 20 minutes. If processing lasts longer, a new mixer pipe must be used.

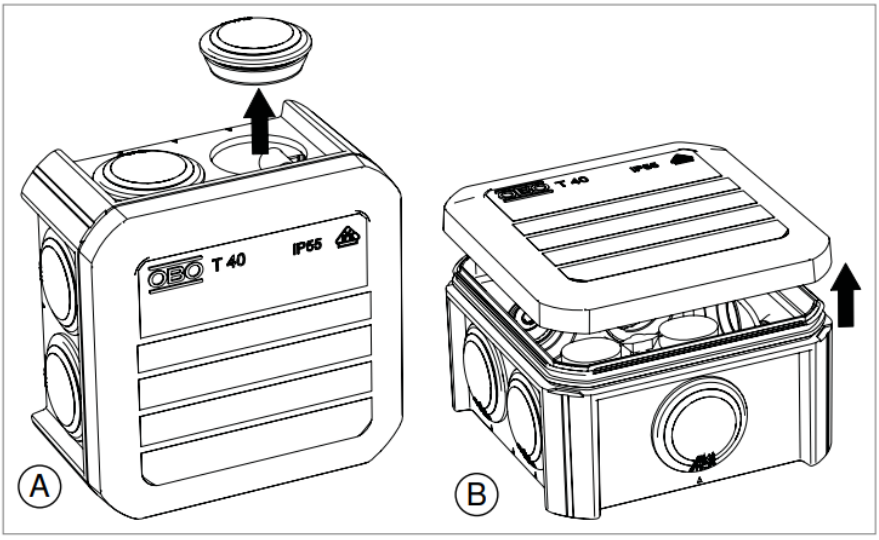


Fig. 13: Opening the junction box

1. Open the junction box. Depending on the position of the junction box, select the A or B variant.

   Note! To be able to fill the junction box fully, always select an opening that can be filled from above.

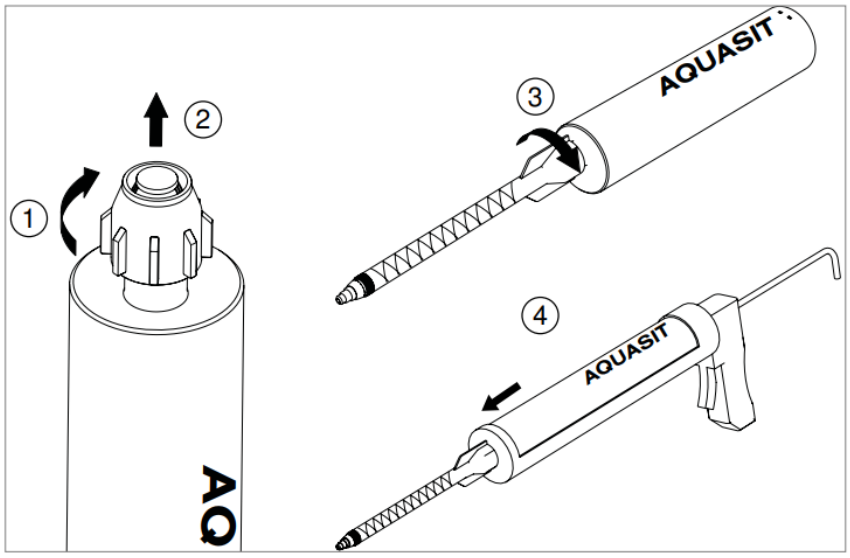


Fig. 14: Inserting the cartridge

2. Unscrew the cartridge lid 1 .
3. Pull the plug out of the cartridge opening 2 .
4. Screw the mixer pipe onto the cartridge opening 3 .
5. Insert the cartridge in the cartridge pistol 4 .

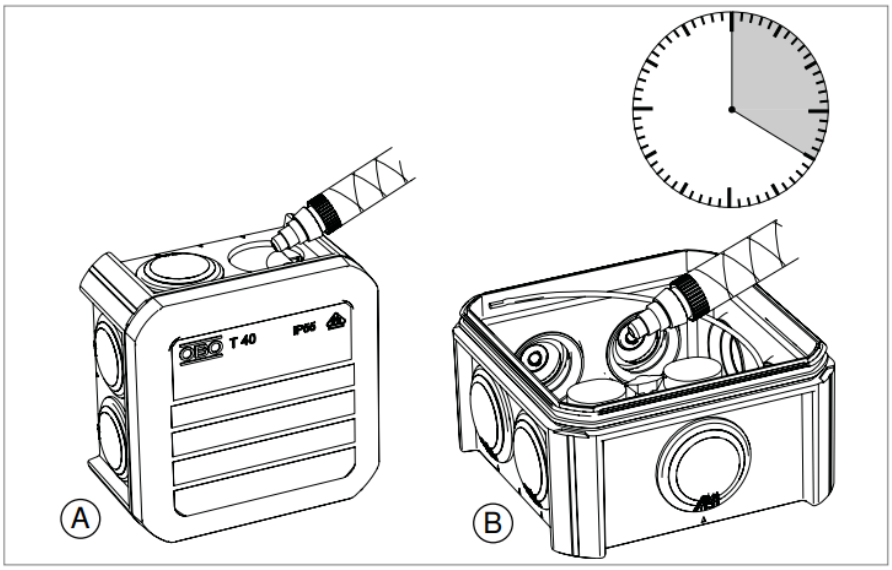


Fig. 15: Filling the junction box

6. Completely fill the junction box with AQUASIT. Depending on the position of the junction box, select the A or B variant.
7. Seal the junction box again.

Note!
As soon as the casting compound has hardened, the electrical system can be commissioned and the contacts can be measured with testing pins.
Note!
Opened cartridges can be reused within 24 hours. To protect the contents against contact with the air, leave the used mixer pipe on the cartridge or close it with the corresponding plug. When reusing the cartridge, use a new mixer pipe.

4.2 Processing the AQUASIT mixing bag

Note! AQUASIT can be processed over a period of 20 minutes.

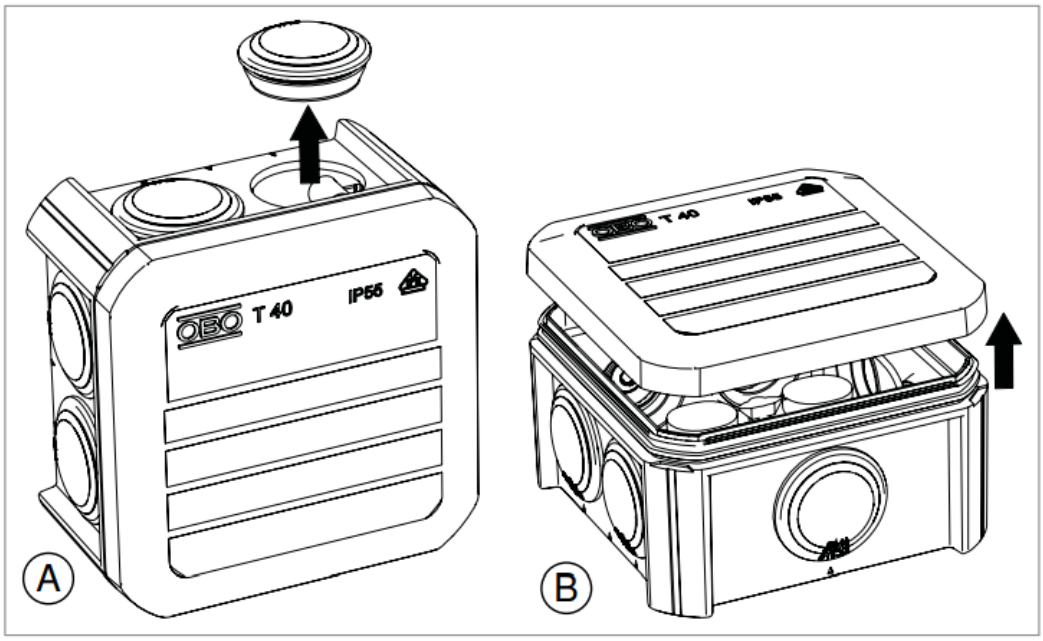


Fig. 16: Opening the junction box

1. Open the junction box. Depending on the position of the junction box, select the A or B variant.

   Note! To be able to fill the junction box fully, always select an opening that can be filled from above.

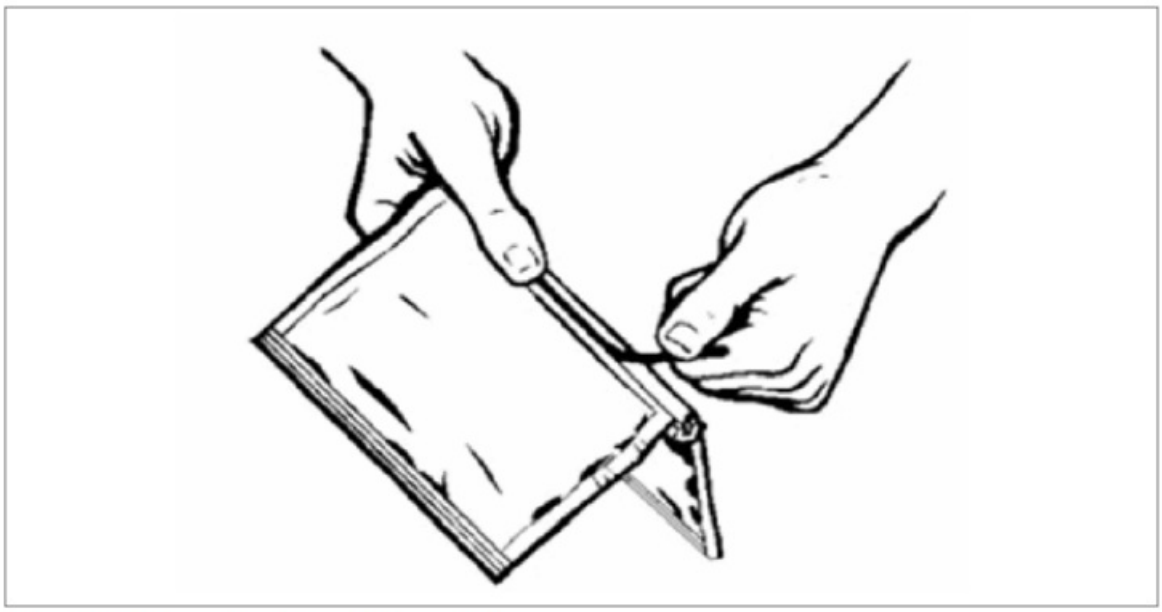


Fig. 17: Removing the closing strip

2. Remove the closing strip of the mixing bag.

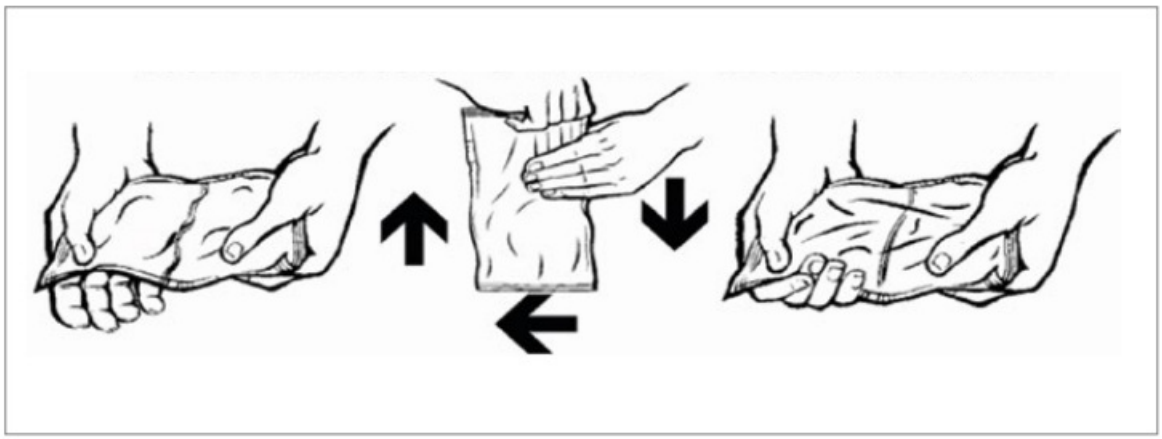


Fig. 18: Kneading the mixing bag

3. Knead the mixing bag for 3 minutes until the two components have been mixed together.

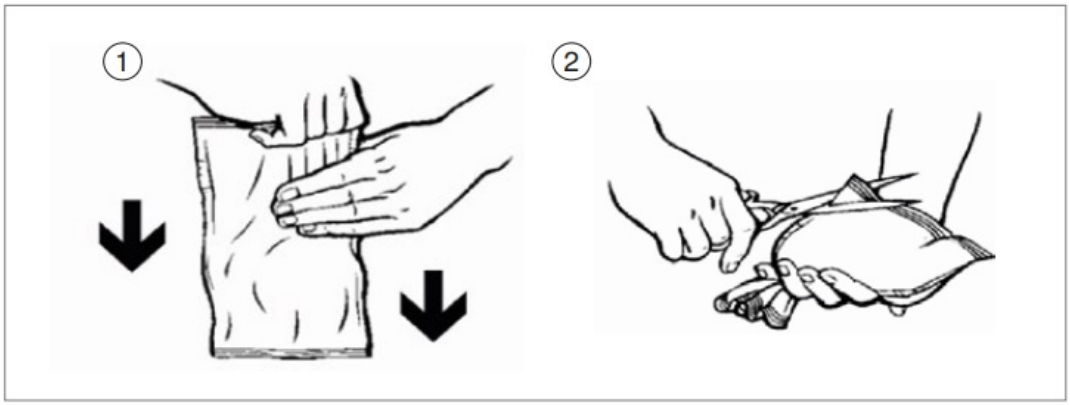


Fig. 19: Pressing the mixing bag together and cutting it open

4. Press the mixing bag together so that the entire contents are collected on the bottom 1 .
5. Cut the mixing bag open at the lower corner 2 .

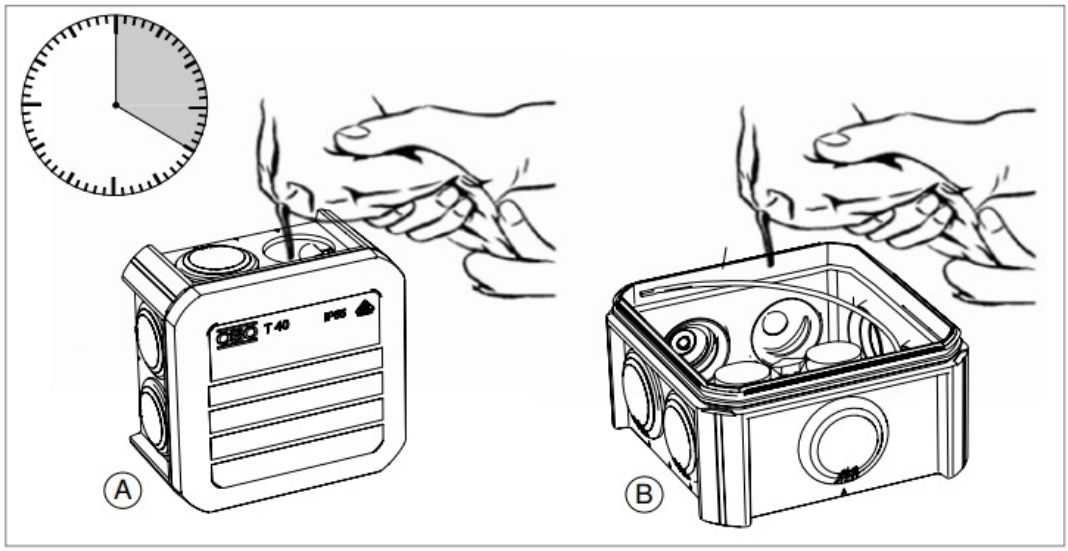


Fig. 20: Filling the junction box

6. Completely fill the junction box with AQUASIT. Depending on the position of the junction box, select the A or B variant.
7. Seal the junction box again.

Note!
As soon as the casting compound has hardened, the electrical system can be commissioned and the contacts can be measured with testing pins.

Removing the casting compound

AQUASIT can be easily removed by hand.

Maintenance

AQUASIT requires no maintenance.
AQUASIT need not be completely removed for maintenance or repair work within the junction box. Any residues of the casting compound are surrounded with AQUASIT when the junction box is filled again.
Note! To ensure the electrical conductivity of the contacts, the cable ends must be cleaned before reinstallation and a new terminal or terminal strip used.

Disposal

National laws and regulations must be observed for disposal.
– AQUASIT: As household waste
– Packaging: As household waste
– Completely empty the cartridge before disposal.

Technical data

Name	AQUASIT two-component cold casting compound	
Item no.	KVM 250	2363 044
	KVMM 250	2363 030
	KVMM 400	2363 032
	KVMM 800	2362 034
	KVMM 1600	2363 036
Colour (final state)	Amber, transparent	
Processing temperature	5 to 40 °C	
Processing time	Max. 20 minutes	
Use temperature	–40 to 80 °C	
IP protection rating	IP68	
Impact resistance	> 25 kV/mm	
Nominal voltage	400 V	
Storage temperature	0 to 40 °C	
Storage period	24 months after the production date	

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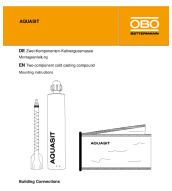
OBORD 220652 Stand 09/2022
Mounting instructions in further languages can be found at www.obo-bettermann.com

Documents / Resources

	OBO Bettermann KVM-P Two Component Cold Casting Compound [pdf] Instruction Manual KVM-P Two Component Cold Casting Compound, KVM-P, Two Component Cold Casting Compound, Cold Casting Compound, Casting Compound

References

- OBO Group | OBO
- OBO Bettermann - Lösungen für Elektroinstallationen | OBO
- User Manual