

PIG Magnetic Leak Patch Instructions For Use

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Technical details on p3:

Stocked Item# PLRE800, reference vendor item# MLP PUR 30

Stocked Item# PLRE801, reference vendor item# MLP PUR 45

For any other items, please enquire.



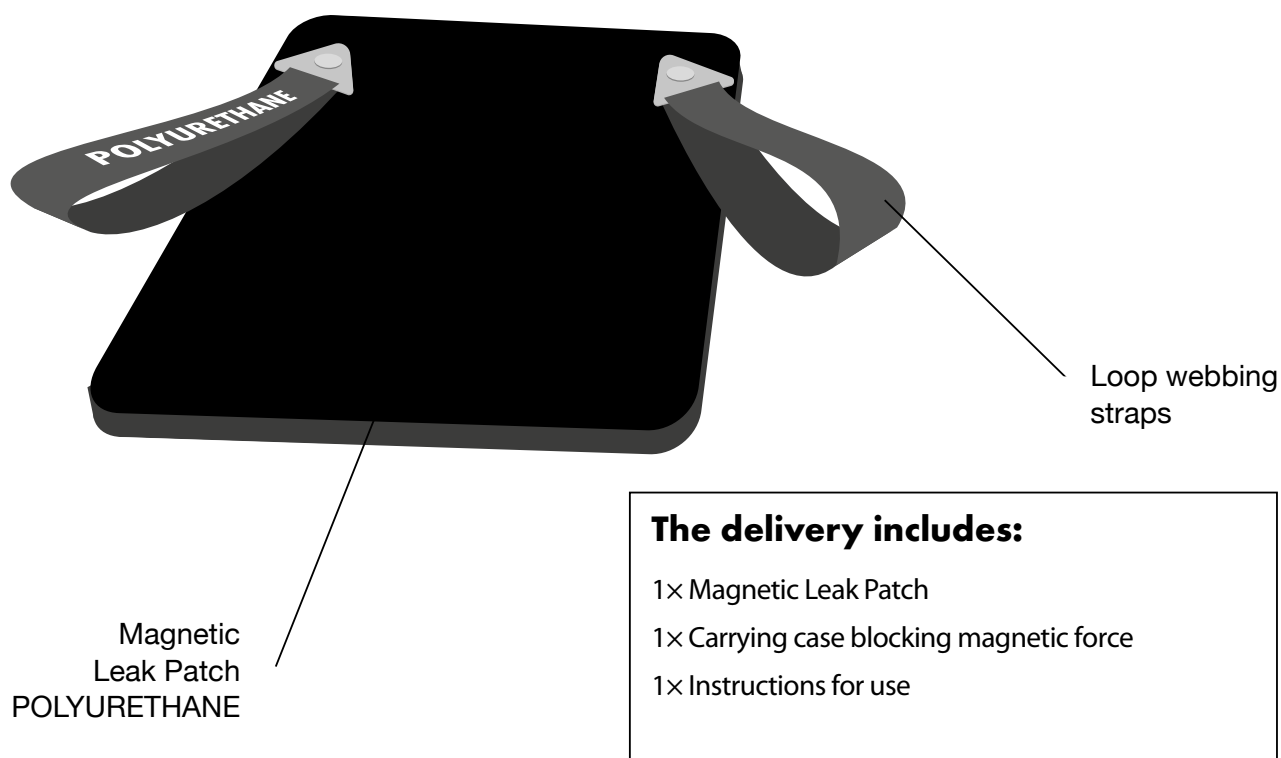
Hogs Hill, Watt Place, Hamilton International Technology Park, Blantyre, Glasgow G72 0AH
Tel: 0800 919 900 | Fax: 0800 731 50 71 | pigpen@newpig.com

Concorde 5, 5126 RM GILZE, The Netherlands
Tel: +31(0)76 596 9250 | Fax: +31(0)76 596 9252 | pigpost@newpig.com

This document describes the operation and characteristics of the Magnetic Leak Patches (hereinafter “patches”). It contains important information about how to use the patches properly and how to increase their reliability and life. This document must always be available in the place where the patches are used. Keep it together with the patches at all times. The operator is responsible for using the patches safely and in compliance with the instructions in this manual, which applies to any third persons as well. If you have any doubts about the correct use of the patches, please contact the manufacturer or an authorized dealer.

Magnetic Leak Patches are the fastest, safest, and most effective way to immediately stop or prevent undesirable leaks, for example from punctured steel drums, tanks, cisterns, pipelines, etc. Thanks to the quick application of the patch to the damaged object, contamination of the responder, the surrounding soil, and water is minimized.

Magnetic Leak Patch



Magnetic Leak Patch is manufactured from High Quality Flexible Urethane with High Thermal and Chemical Resistance. Implemented High Quality Strong Rare Earth Magnets **can hold guaranteed up to 37,5 pounds of pressure (17 kg)**. Magnetic Patch is available in 2 sizes. The smaller patch is delivered with 2 loop webbing straps, the bigger one with 4 loop webbing straps. Temperature resistance is from **-40 °C up to +120 °C**. The material used is highly resistant, for example, to petroleum products, mineral oils, and lubricants. If increased chemical resistance of the patch is required, we recommend using a disposable Teflon sheet, which we supply with the patch as optional paid accessory. The patch is ideal for use, for example, in the oil, petrochemical, automotive, or mining industries, as well as in logistics, construction, or mechanical engineering.

Technical Details

Type	Material	Dimensions (mm)	Weight (g)
MLP PUR 30	polyurethane elastomer	300 × 300 × 16	3000
MLP PUR 45	polyurethane elastomer	450 × 450 × 16	7000
MLP PUR 45 C52 – patch with pass-through valve	polyurethane elastomer	450 × 450 × 31	7240
Standard accessories			
Carrying case: MLP PUR 30		410 × 410 × 110	1120
MLP PUR 45		550 × 550 × 110	2300
2pcs ratcheting strap system			930/pc.
4pcs strap guide plates			70/pc.
Optional accessories at extra cost			
Ball valve			
Chemical hose with C52 coupling			
STORZ Elbow C52			
Teflon sheet for MLP PUR 30		585 × 585	
MLP PUR 45		810 × 810	

General information

When using the patches, observe these instructions as well as all the safety notices herein.

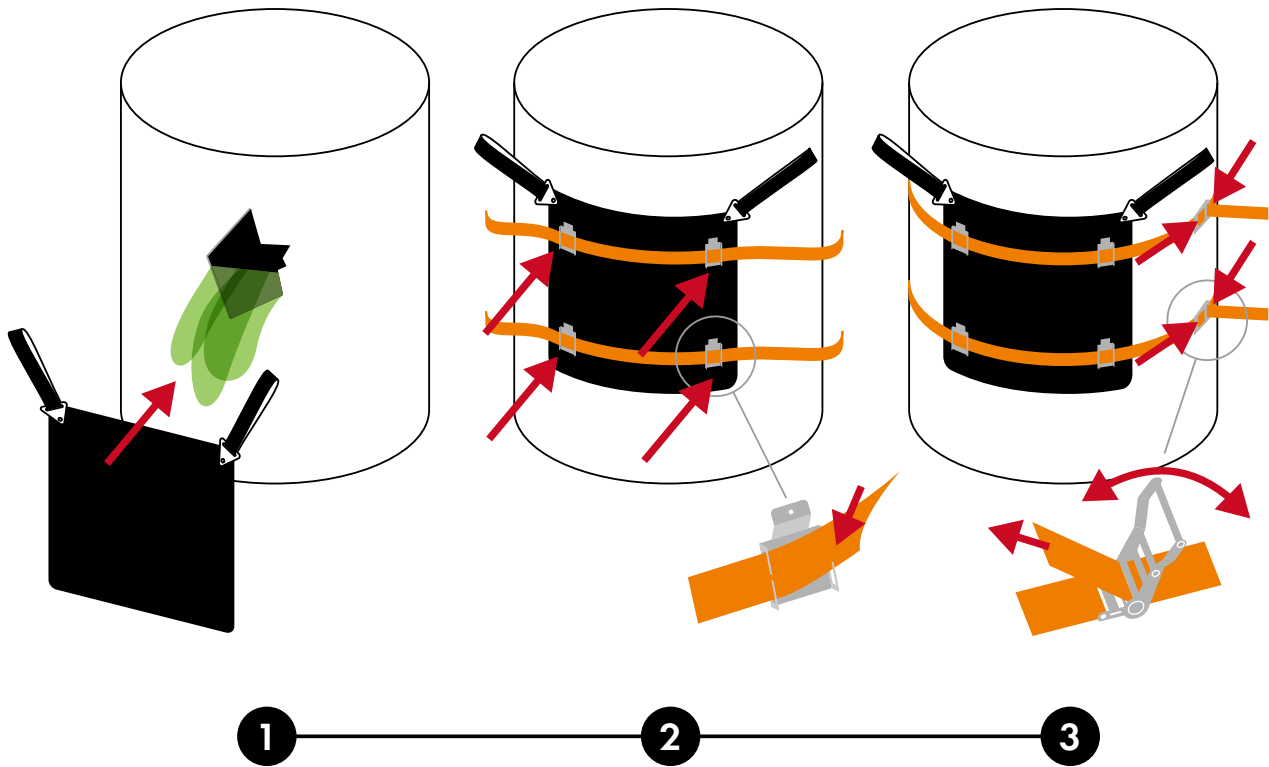
1. The patches may only be operated by an authorized, professionally qualified, and trained person.
2. The patches are designed as a quick solution for emergency and accident situations. They serve to immediately stop the leakage of hazardous substances, for example from punctured steel drums, tanks, cisterns, pipelines, etc.
3. The patches are not designed as a permanent solution, but only as a temporary emergency sealing of a leak until a permanent remedy of the problem is ensured.
4. The patches are available in 2 sizes and 2 material types – POLYURETHANE and SILICONE.
5. If necessary, the patch can be relocated at any time.
6. The patches are resistant to a wide range of hazardous substances – see the Chemical Resistance Certificate. Given the large number of chemical substances and the different conditions of their application and other influencing factors, the Chemical Resistance Certificate has only an indicative character. To make a valid conclusion on the degree of chemical resistance of the patch to a specific chemical substance, we always recommend carrying out individual resistance tests.
7. Using a Teflon sheet significantly increases the chemical resistance of the patch.
8. The patches are flexible, durable, and reusable.
9. The temperature ranges for using the patches are given in the chapter Types of Magnetic Leak Patches MLP, p. 3.
10. Ideal storage is recommended in the carrying cases, which are a standard part of the product.

Instructions for use

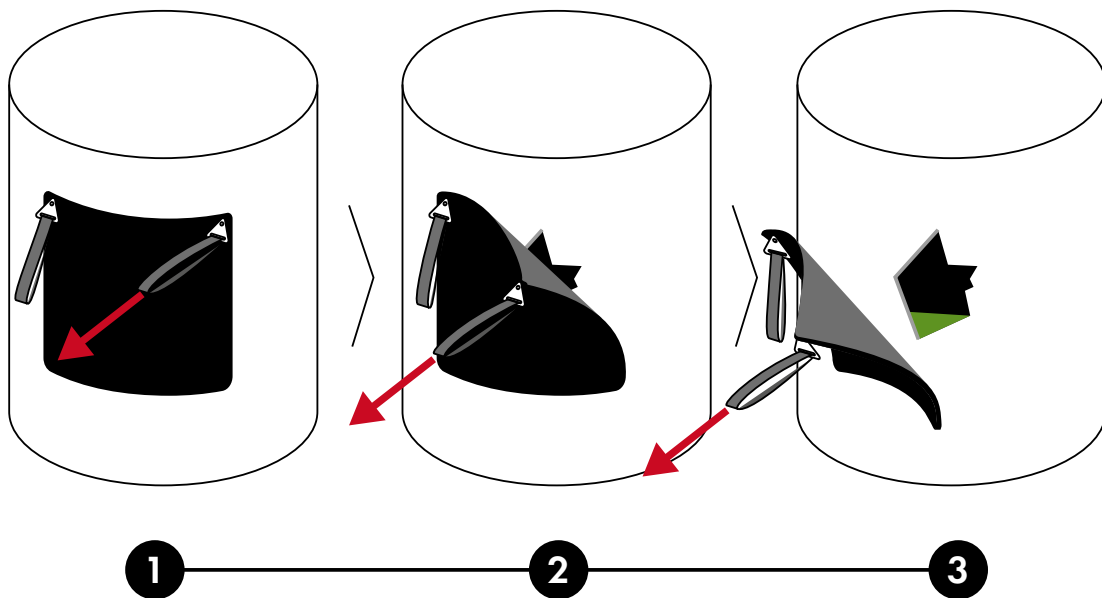
Magnetic Leak Patch

1. The Magnetic Leak Patch may only be used by an authorized, professionally qualified person.
2. Before use, the operator must be equipped with appropriate PPE – e.g. protective suit, protective helmet, safety glasses, protective gloves, safety footwear, etc.
3. Ensure that no unauthorized person is present in the hazardous area during the patch application process.
4. Remove the patch by grasping the straps from the carrying case and check that it is undamaged and in perfect condition.
5. Apply the patch by attaching, throwing, or using a rod. This method protects the responder from direct contact with hazardous substances.
6. If increased chemical resistance of the patch is required, we recommend using a Teflon sheet, which we supply with the patch as optional paid accessory.
7. To apply the Teflon sheet, first spread it out on a clean surface free of dirt to avoid damage. Place the patch onto this sheet. Fold the protruding edges of the Teflon sheet over onto the patch. Attach the Teflon sheet to the patch using fixing loops on the straps. Then apply the protected patch to the damaged object using the handling straps – see the Illustrated Guide below.
8. To increase the pressing force, fixing straps can be applied to the patch, securing it to the damaged object; these are standard parts of the product package.
9. If necessary, the patch can be relocated at any time.
10. Removing the patch from the damaged object is done after removing the fixing straps – grasp the loop webbing strap at one corner of the patch and slowly pull it away at a 45° angle until the patch is fully removed – see the Illustrated Guide below. Hold the loop webbing strap at the other corner during removal to avoid injury caused by rapid detachment of the patch.
11. A used/contaminated disposable Teflon sheet must be disposed of ecologically after removal from

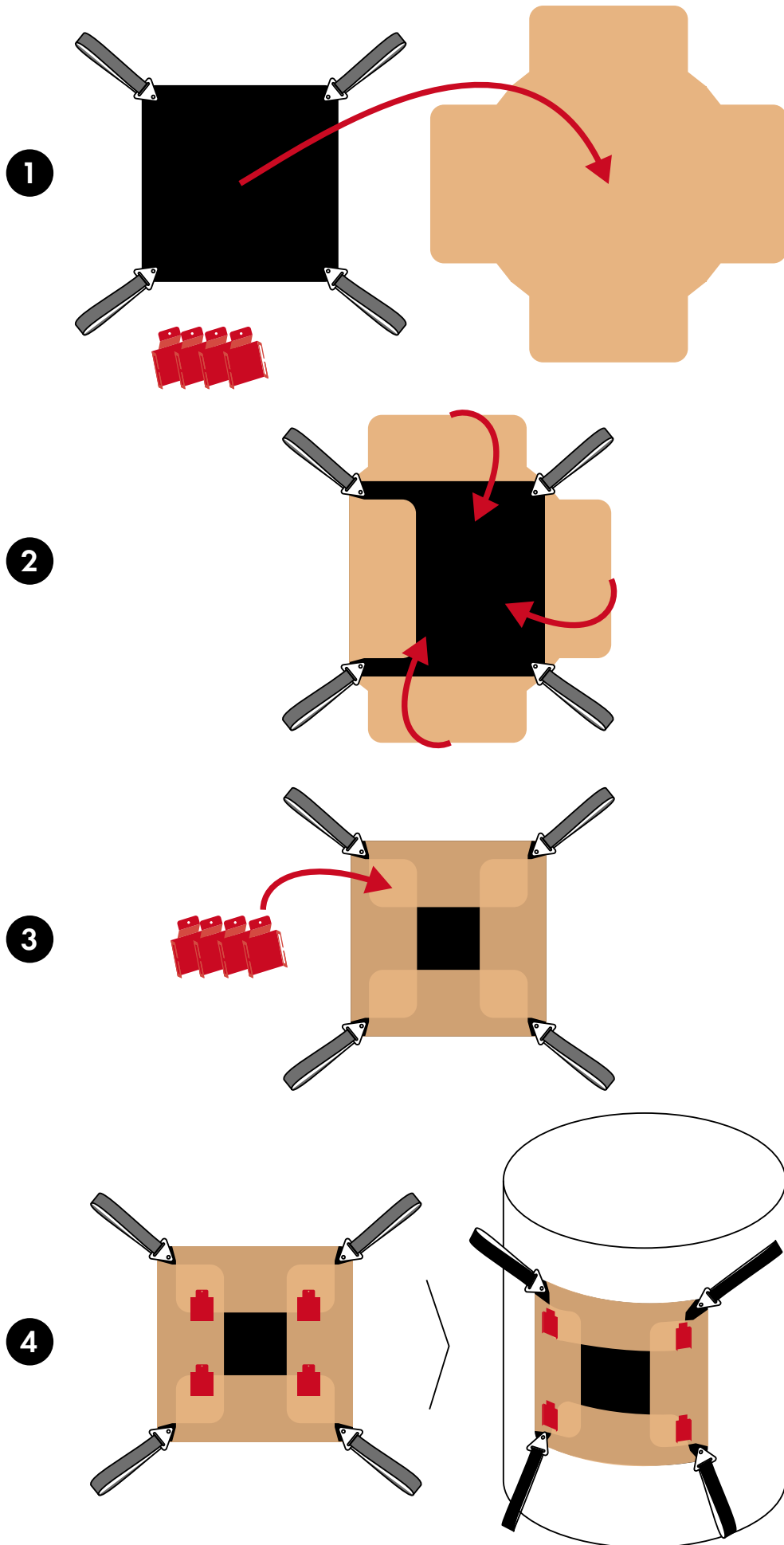
Instructions for using Magnetic Leak Patch and ratcheting straps



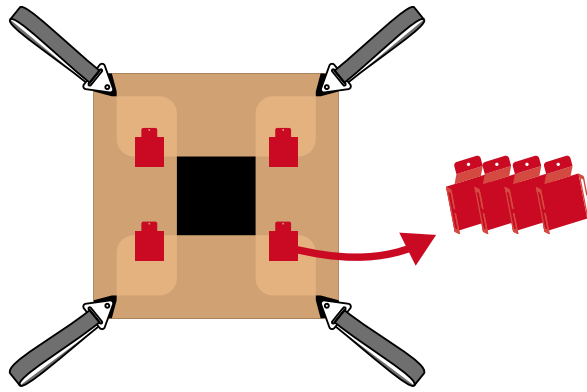
Illustrated guide to removing the patch from the damaged object



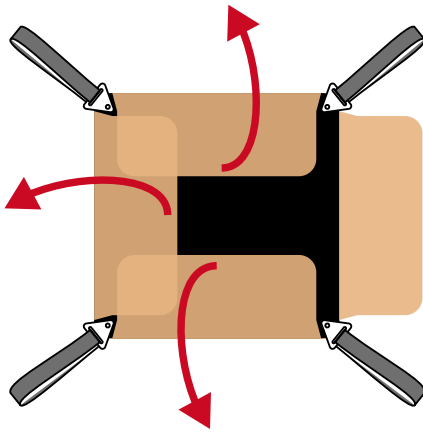
Illustrated guide to applying/removing the Teflon sheet



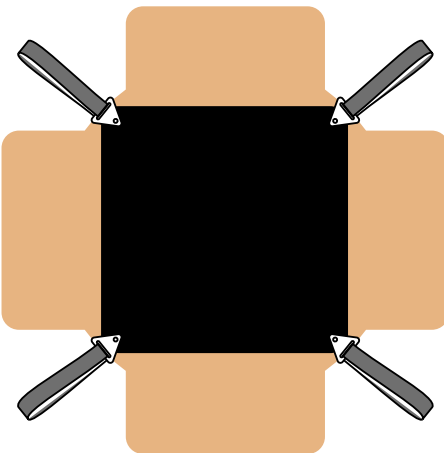
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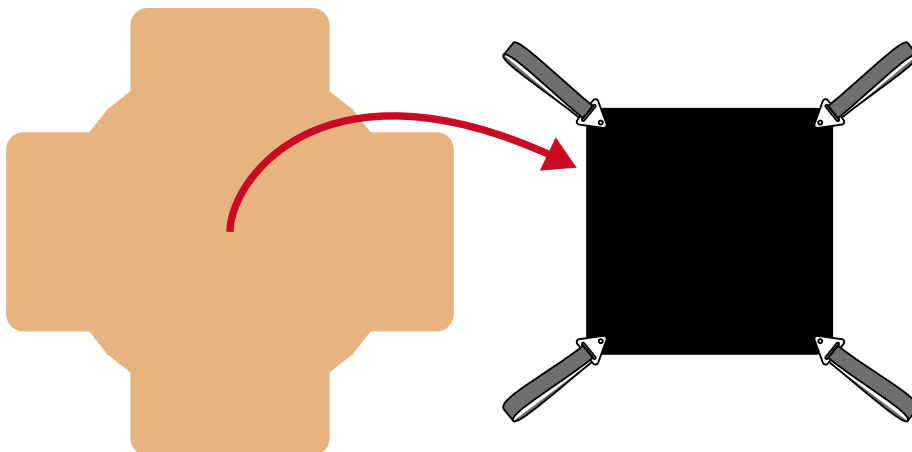
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Handling instructions and safety warnings

1. The Patch may only be used by an authorized, professionally qualified person equipped with suitable PPE.
 2. No unauthorized persons may be present at the intervention site.
 3. Before and after use, it is always necessary to check the condition of the patch and accessories.
 4. Never use a damaged patch or damaged accessories. If damage occurs to the extent that the magnets are exposed, the patch can no longer be used. Exposed magnets may produce sparks if struck.
 5. For intervention, always use a patch that is larger than the leak area to ensure sufficient pressing magnetic force.
 6. Observe the chemical and temperature resistance of the individual types of patches. Using the patch outside the recommended temperature range may damage the magnets and cause a loss of magnetic force.
 7. Before use, it is advisable to identify the type of leaking hazardous substance in order to determine the correct type of patch according to its specific chemical resistance.
 8. If increased chemical resistance of the patch is required, we recommend using a disposable Teflon sheet.
 9. The Magnetic Patch is not intended for use in explosive atmospheres or in environments with an increased risk of explosion.
 10. Apply the Patch, for example, to punctured steel drums, tanks, cisterns, pipelines, etc.
 11. Apply the Patch using handling straps, by throwing, or with a rod. Never insert your fingers between the Patch and the damaged object during application.
 12. Do not bring the product near fire or other direct heat sources.
 13. The temperature range for using the Patches is given in the chapter Types of Magnetic Leak Patches MLP, p. 3.
 14. The Patch is resistant to a wide range of hazardous substances – see the Chemical Resistance Certificate.
 15. The Patch should ideally be stored in the special carrying case, which eliminates its magnetic force, protects it from UV radiation, and is a standard part of the product.
 16. After each use, the Patch must be thoroughly washed and cleaned with suitable cleaning agents and allowed to dry completely.
 17. Before removing the Patch, make sure that hazardous substances have been completely drained from the damaged container.
 18. Follow occupational safety principles when handling hazardous liquids and substances harmful to the environment.
 19. Ensure compliance with all necessary preventive measures for personal safety, such as the use of protective equipment, etc.
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Factors affecting magnetic force

The pressing force of the implemented magnets is influenced, in addition to the Patch manufacturing technology, also by the following factors:

- An air pocket between the damaged object and the Magnetic Patch
- Uneven structure of the damaged object, e.g. rough surface with protrusions, irregular shape of the object
- Type and thickness of the material of the damaged object with varying high/low iron alloy content
- Temperature of the material of the damaged object – high temperature reduces the effectiveness of the magnets used

Accessories

The Magnetic Leak Patch is supplied as standard with ratcheting straps and strap guide plates. Using this accessory significantly increases the adhesion of the patch to the damaged object.

Maintenance and storage

After use, the product must be washed with a suitable neutralizing agent (for aggressive substances), lukewarm water, or another suitable cleaning agent. Never clean the Patches using rough mechanical or pressure methods (brushes, pressure washers, compressed air, etc.). Use, for example, soft cleaning cloths. After thoroughly drying the Patch, we recommend storing it preferably in covered areas, in the special case that is a standard part of the product, which protects the Patch from damage and UV radiation and eliminates its magnetic effect when not in use. The product must be stored at the optimal storage temperature of -20 °C to $+25\text{ °C}$.

Disposal

The product must be disposed of in compliance with applicable legal regulations and with the user's internal directives.