

**PRODUCT DESCRIPTION**

ADEKA KM is a hydro-expansive seal with high resistance to hydraulic load that creates an excellent seal of expansion and contraction joints, including deteriorated, in any reinforced concrete structure. Available in various formats, it is also recommended for setting up seals for concrete or metal piping. Thanks to its great flexibility, it can also be applied to particularly articulated or irregular structures.

**PRODUCT APPLICATION**

- To seal expansion and contraction joints in every kind of reinforced-concrete structure (rooms, underground, channels, tanks, pools, etc)
- To set-up seals between reinforced concrete or metal prefabricated elements for hydraulic works
- To seal deteriorated expansion and contraction joints
- To set-up seals for reinforced concrete, metal or plastic piping

ADVANTAGES

- Perfect hydraulic water-tightness
- High resistance to hydraulic load
- Also usable in the presence of salt water
- Non-toxicity and respect for the environment
- Great flexibility of use
- Easy and quick application

PREPARATION AND APPLICATION

In case of open section expansion joint, place the modular JOINT PANEL in section on the surface outside the laying seat of the ADEKA KM profile (see Type B or Type R technical data sheet).

Clean the application surface of the profile from any dust, form oil and any loose parts.

Proceed in small sections by applying a thin layer of ULTRABOND adhesive with a small brush on one of the wider sides of the profile and on the application surface, which must be dry.

After 2÷8 minutes press the parts in place.

If the application surfaces are irregular or wet, use AKTI-VO 201 hydro-expansive mastic to level and bond the profiles.

The ADEKA KM profiles must be applied with a minimum coating of 10 cm of reinforced concrete, where an adequate separating layer must be inserted in case of open section expansion joint (see technical specifications).

The profiles must be done joined and sealed by placing the ends side by side at 10 cm and interposing AKTI-VO 201 hydro-expansive mastic.

How it works



ADEKA KM

When in contact with water, the ADEKA KM profiles can be hydrated until the hydrophilic polymer is saturated, thereby doubling the initial volume.

This guarantees a perfect watertight seal at the structural expansion joints that are subjected to hydrostatic load.

If the water presence is not constant, the ADEKA KM profiles firmly maintain the expanded size.

The profiles slowly lose the previously absorbed water molecules if placed in an environment without humidity, thereby returning to their original size.

When the product comes into contact with water once again, the expansion phenomenon is repeated with the same characteristics.

Thanks to the chemical stability of the product, this phenomenon can be repeated without losing its expansion and pressure characteristics.

Selection guide

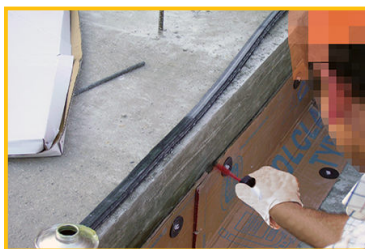
In order to use ADEKA KM profiles correctly, it is necessary to know that a perfect watertight seal is directly related to the pressure exerted by the profiles on the confinement walls and their level of interconnection.

A joint must be created on one of the side of the ADEKA KM hydro-expansive profiles, in order to prevent them from being expelled by the hydrostatic pressure before they swell.

If the profiles are circular, mechanic restraints must be used.

The required size of the profile is selected according to the maximum linear movement of the joint (considering shrinkage phenomena, thermal movement of the concrete and possible differential settlement) and to the initial opening of the joint that is to be created during implementation.

Type of profile	Dimensions	Max initial opening	Additional consecutive movement	Type of use
KM 20.05	20X5 mm	3 mm	2 mm	Seal between the prefabricated parts made of concrete and metal
KM 20.10	20X10 mm	7 mm	3 mm	Expansion and contraction joints
KM 20.20	20X20 mm	13 mm	7 mm	Expansion and contraction joints
KM STRING 12	Ø 12 mm	10 mm	4 mm	Piping and joint renovation seal



References available at www.volteco.com

PACKAGING AND STORAGE

The ADEKA KM profiles are packed in boxes containing:

KM 20.05: contents per box 100m = 10 rolls of 10 m;

KM 20.05: contents per box 25 m = 1 roll;

KM 20.20: contents per box 10 m = 1 roll;

KM STRING 12: contents per box 25 m = 1 roll;

KM STRING 24: contents per box 10 m = 1 roll;

The products must be stored in a dry place protected from sun and humidity.

WARNINGS - IMPORTANT NOTES

The joint must guarantee that the profile remains in place during the subsequent casting.

The ADEKA profile must be used on walls that are thick enough to guarantee a minimum reinforced concrete coating of 10 cm on the sides.

Do not use nails to fasten the ADEKA profile.

PHYSICAL AND TECHNICAL SPECIFICATIONS



ADEKA KM

Specification	Values
Specific weight	1.10 g/cm ³ ±15%
Volumetric expansion in water	> 150%
Type of rubber	partially vulcanised
Pressure exerted on the contact walls at the maximum admissible opening	1.5 N/mm ² per cm in thickness

SAFETY

It is recommended to use gloves while working.
Accidental contact with eyes, rinse thoroughly with water and seek medical advice.

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