

## Technical Data Sheet

# antas<sup>®</sup> FR50

## Fireproof MS Joint Sealant

### DESCRIPTION

antas<sup>®</sup> FR50 is a fire resistant, single component, low modulus, neutral curing, modified silane (MS) based joint sealant. antas<sup>®</sup> FR30 is tested to AS1530.4 and achieved a fire resistance level up to 4 hours (FRL of -/240/240) \*.



In addition to its superior fire-resistant properties, antas<sup>®</sup> FR50 has excellent other properties as required for a high-performance joint sealant.

- High movement capacity of  $\pm 25\%$ .
- Excellent adhesion to most building materials.
- Paintable with most architectural coatings.
- Excellent UV, heat, water and salt resistance.
- Safe and environmentally friendly with low VOC and no isocyanate content.

antas<sup>®</sup> FR50 is suitable for exterior and/or interior sealing of building envelopes that also requires high fire-resistant properties. It has

good compatibility with a wide range of substrates including concrete, AAC, aluminium, timber, stone, FPC, EPS, PVC.

Note the current testing and assessment of fire hazard may or may not cover the fire conditions for intended applications. The suitability and compliance conditions of antas<sup>®</sup> FR50 for specific applications should be determined by qualified fire engineers.

- \* *Tested by CSIRO and Warrington Fire in accordance with Australian Standard 1530, Methods for fire tests on building materials, components and structures, Part 4 Fire-resistance tests of elements of construction, 2014, Section 10: Service penetrations and control joints. The FRL of elements construction sealed with sealants is depended on joint designs and other materials. Please contact Antas for further information on the testing reports and assessments of fire hazard.*

### STANDARD AND COMPLIANCE

- AS1530.4 – 2014
- ISO 11600 F-25LM

### APPLICATION

Prepare the substrate and keep it clean, dry and free from grease. Remove all dirt, oil, grease, detergents and loose material. The joint edges can be masked with tape to prevent contamination. Remove the tape carefully after tooling. Use suitable backing rod to fill the cavity of the joints as needed.

Cut nozzle to desired size at 45° angle and attach to the sealant cartridge. Insert the

cartridge into a caulking gun. Pull the trigger of the caulking gun to extrude sealant through the nozzle.

For joint sealing, smooth the surface of the sealant filled joint within the tooling time and clean off excess sealant.

For bonding and installation of flooring or prefabricated objects, sliding the floor or other objects onto the adhesive sealant, tap into place.

## TYPICAL PROPERTIES

No.	Test items	Test result
1	Movement Capability	±25%
2	Tack free time, h	1.2
3	Resistance to flow, mm	<3
4	Elastic recovery, %	88
5	Tensile Modulus, MPa	23°C
		-20°C
6	Tensile properties at maintained extension	No failure
7	Adhesion/cohesion properties at variable temperatures	No failure
8	Adhesion/cohesion properties at maintained extension after water immersion	No failure
9	Rate of mass loss, %	2

## CURING TIME

antas® FR50 is cured by reacting with moisture in the air. Depending on ambient conditions, it has a tack-free time of approximate 70 minutes and curing rate of approximately 3mm in the first 24 hours.

It is recommended to secure the substrate prior to the applying of the sealant and avoid any movement during the curing process.

## PRIMING

Priming is not usually required when using antas® FR50 providing joint faces are clean and free from any trace of laitance or surface

contamination. However, adhesion to substrate and compatibility with surface coatings should always be tested in advance to determine the need of a primer.

If required, a thin film of antas® 202 primer can be applied on substrate by using a clean lint-free cloth and allowed to dry before sealant application.

In required, antas® 203J adhesion promoter can be applied on the surface of antas® MS30 in promoting adhesion to surface coatings.

## MAINTENANCE & REPAIR

antas® FR50 sealant can be easily repaired when needed. Firstly, remove the damaged section and clean the surface with solvent, then patch the section with new sealants of same colour and grade.

## LIMITATIONS

antas® FR50 should not be applied under the following conditions:

- On substrate that bleed oil, plasticiser or solvent etc.
- On materials such as impregnated wood; oil-based caulks; green or partially vulcanized rubber gaskets/tapes; bituminous below-grade waterproofing or asphalt-impregnated fibreboard etc.
- In confined spaces.
- Substrate temperature over 45°C or below 5°C.
- Wet surface.
- Surface contact with food directly.
- For structural glazing.
- Other unsuitable conditions determined by trial.

## PAINTABILITY

antas® FR50 is paintable with most water based paints. However, due to large number of paints and varnishes available, compatibility test is highly recommended prior to the application.

*Note: antas® FR50 has larger movement*

*capability than normal paint films. Cracking of paint film may occur with movement.*

## **CLEAN UP**

Excess sealant can be removed with mineral spirit and cleaning solvent before cured. Once cured, antas® FR50 may only be removed mechanically.

## **SAFETY**

antas® FR50 has low VOC and no isocyanate content. Avoid direct contact with eyes when operating. In case of accident, rinse opened eye under running water for several minutes.

During the curing process, small number of alcoholic molecules is released. Keep good ventilation at the construction site. Avoid applying in confined space.

Read and follow material safety data sheet for safe handling or using.

## **PACKAGING**

600ml sausages / 20 per carton

## **COLOUR**

Grey, other colours available on request.

## **TRANSPORTATION & STORAGE**

antas® FR50 is classified as non-dangerous goods for transportation.

The product should be stored in a dry and cool place between 5 to 30°C. The shelf life is 12 months from the date of manufacturing under normal storage conditions.

**Disclaimer:** The statements in this document are based on our present technical knowledge and experience. They do not relieve the applicators from carrying out necessary tests and experiments on their own. Since the conditions of applying our products may vary which can influence results in many ways, this document does not imply any legally binding assurance of certain properties or of suitability for a specific purpose.

V05JL2408