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Fire Laboratory

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Ljubljana, 25. 9. 2012

CLASSIFICATION REPORT

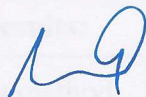
No. P 0337/12-530-3

CLASSIFICATION OF FIRE RESISTANCE PERFORMANCE
IN ACCORDANCE WITH SIST EN 13501-2:2008+A1:2009

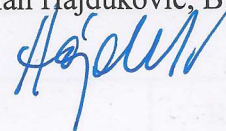
Vertical linear joint seals
INSU-ROPE, 20 – 180 mm thick

Sponsor: EZS d.o.o., Brezje pri Grosuplem 10, SI-1290 Grosuplje
Order No: 269/2012 dated 28th of March, 2012

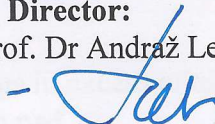
Responsible investigator:
Robert Umek, B.Sc.



Head of laboratory:
Milan Hajduković, B.Sc.



Director:
Assoc. Prof. Dr Andraž Legat



Other accreditations: BUREAU VERITAS (Certificate of Recognition No. SMS.LAB.462/2900/B.0)

Member  - European Group of Organisations for Fire Testing, Inspection and Certifications

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1. Introduction:

This classification report defines the resistance to fire classification assigned to linear joints sealed with insulation ropes **INSU-ROPE, 20 to 180 mm thick**, in accordance with the procedures given in SIST EN 13501-2:2008 + A1:2009.

2. Information above the product:

2.1 General:

The insulation ropes made of rock wool **INSU-ROPE, 20 to 180 mm thick**, prevents spread of fire from room of origin considering resistance to fire performance characteristics stated in Clause 5 and 7.5.9 of SIST EN 13501-2:2008 + A1:2009.

2.2 Product description:

The insulation ropes **INSU-ROPE, 20 to 180 mm thick**, are fully described below.

The insulation ropes are made of rock wool of diameters 20 to 180 mm, density $240 \pm 20 \text{ kg/m}^3$ with highly dense shield system (glass thread), which are installed stand-alone as linear seals in supporting construction.

Following diameters of the rope is required for linear gaps:

Joint gap (mm)	<10	<15	<20	<25	<30	<40	<50	<60	<70	<80	<90
Diameter (mm)	20	25	30	35	40	50	60	70	80	90	100

Joint gap (mm)	<100	<110	<120	<130	<140	<150
Diameter (mm)	120	130	140	150	160	180

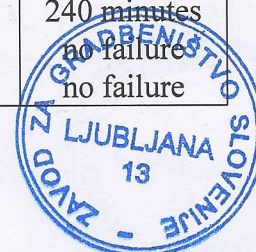
3. Test reports and test results in support of the classification

3.1 Test reports:

Laboratory	Name of sponsor	Report No.	Test method
ZAG Ljubljana	EZS d.o.o.	P 0337/12-530-1	SIST EN 1366-4:2006

3.2 Test results:

Test method	Parameter	Results
SIST EN 1366-4:2006	Integrity (E):	240 minutes
	- cracks or openings in excess of given dimensions - ignition of cotton pad - sustained flaming on the unexposed side	no failure 240 minutes 240 minutes
	Insulation (I)	240 minutes
	- mean temperature rise $>140^\circ\text{C}$ - max. temperature rise $>180^\circ\text{C}$	no failure no failure



4. Classification and field of application:

4.1 Reference:

This classification has been carried out in accordance with Clause 7.5.9 of SIST EN 13501-2:2008+A1:2009.

4.2 Classification:

The insulation ropes **INSU-ROPE, 20 to 180 mm thick** are classified according to the following combinations of performance parameters and classes as appropriate. No other classification is allowed.

E	15		30	45	60	90	120	180	240		
EI	15	20	30	45	60	90	120	180	240		

Fire resistance classification:

EI 240 – V – X – F – W 10 to 150

4.3 Field of application:

This classification is valid for the insulation ropes **INSU-ROPE, 20 to 180 mm thick** with the following product variations:

4.3.1 Orientation (according to SIST EN 1366-4:2006):

Tested orientation	Application
B	B

4.3.2 Supporting construction (according to SIST EN 1366-4:2006):

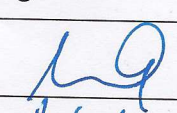
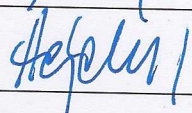
- supporting construction may be concrete, block work or masonry separating elements thickness equal or greater than 200 mm.

4.3.3 Seal position (according to SIST EN 1366-4:2006):

- seal position for linear joints width from 10 to 100 mm should be type D,
- seal position for linear joints width from 110 to 150 may be types A, B, C or E.

5. Limitations:

This classification document does not represent type approval or certification of the product.

	Name	Signature	Date
person undertaking classification:	Robert Umek, B.Sc.		25. 9. 2012
person authorising this report:	Milan Hajduković, B.Sc.		25. 9. 2012

