

Fire suppression system for engine compartment

Issued to**Reacton Fire Suppression Ltd**

14 Baynes Place, Waterhouse Business Park, Chelmsford, Essex, CM1 2QX, United Kingdom

manufacturing site

same as above

Product and product name

Fire suppression system for engine compartment, Reacton CTX Indirect Powder

Classification

Test scenario rating	Level of openness	Class A fire
A+	4	A

Technical data/Performance

See the following pages of this certificate.

Certificate

The product described in this certificate fulfils the requirements in RISE Certification rules regarding Fire suppression systems in engine compartments of buses, coaches and other heavy vehicles, SPCR 183 issue 2020-04-06. The certification is based on the manufacturer's technical file and type tests performed in accordance with standards specified in this certificate.

Marking

Marking shall show SPCR 183, RISE logo and P-symbol, manufacturer's name and/or logo, the number of this certificate, the name of the product, classification and its serial number. See last page in this certificate for details.

Validity

This certificate is valid until no longer than 2030-01-17. The validity of this certificate can be verified at RISE homepage.

Miscellaneous

The manufacturer's in-house inspection is under surveillance by RISE in accordance with section 4 and 5 of SPCR 183. Other terms and conditions are set out in section 6 of SPCR 183.



Martin Tillander

Certificate C001016 | issue 3 | 2024-11-27

RISE Research Institutes of Sweden AB | Certification

Box 857, SE-50115 Borås, Sweden

☎ +46 10 516 50 00 | certifiering@ri.se | www.ri.se

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Page 1 (4)

Product information

Technical data of the tested suppression system

Table 1 shows technical data of the suppression system tested for 4 m³ engine compartment volumes. The system may be scaled to fit the size of a specific engine compartment according to the scaling rules in SP Method 4912.

Table 1, technical data of the tested fire suppression system

Suppression agent	Dry powder
Suppression agent name	Furex ABC 770
Suppression agent volume/mass	12 l / 9 kg
Suppression agent container / art number	RE-CTXCE-120-090-ABC
Suppression agent container pressure	25 bar (at +20 °C)
ProPELLANT gas	Nitrogen
Suppression agent delivery hose	3/8" hose
Suppression agent delivery pipes	Double braided synthetic rubber.
Total length of agent delivery system	18 m
Number of nozzles	6
Type of nozzles	5 x RE7145 1 x RE7154
Distance to the most remote nozzle	6 m
Fittings, amount of each type	90° elbow 3 pcs Straight coupling 6 pcs Tee coupling 3 pcs
Minimum operating temperature	-40 °C
Thermal cycling resistance	ISO 16750-3:2007
Mechanical stress resistance (vibration and shock)	ISO 16750-3:2007 (Test VII)
Corrosion resistance	ISO 21207 test method B for 3 cycles

Product performance

Performance rating according to SP Method 4912

Table 2, Fire scenario

Rating	Description	Ventilation (m ³ /s)	Result
A +	Low fire load	3	Pass
	High fire load	3	Pass
	Hidden fire	3	Pass
A	Hidden fire	1.5	Pass
B	Hidden fire	0	Pass
C	Low fire load	3	Pass
	High fire load	3	Pass
D	Low fire load	0	Pass
E	High fire load	0	Pass
	High fire load	1,5	Pass
	Low fire load	1,5	Pass
	Re-ignition >45 s	0	Pass (63 s)

Table 3, level of openness:

Level	Criteria
1	Fire tests passed with open mockup
2	Fire tests passed without mockup floor and ceiling
3	Fire tests passed without mockup floor
4	Fire tests passed with all sides closed on mockup

Table 4, class A fire:

Description	Ventilation (m ³ /s)	Remarks
Class A fire	0.5	Extinguished within 60 s after activation of the suppression system. No re-ignition.
Pass		

Conditions

Electrical equipment included in the system shall have a classification of at least IP65, and be tested in accordance with ISO 20653:2013.

A risk assessment in accordance with SPCR SPCR 183 issue 2020-04-06 section 3.2 shall be made prior to equipment being placed into service. The risk assessment shall be made by personnel having documented experience for the task.

It is the responsibility of the suppression system manufacturer to assure compliance of its suppression system components with legal requirements and vehicle manufacturer requirements.

The marking of the product shall be legible and durable and be designed as below, size 40x60 mm. It shall be applied in conjunction to the engine compartment.

Marking plate:



The marking plate template is a black rectangle with white text and fields. It features the RISE logo (RI. SE) and a crown icon next to a large 'P'. Below this, it says 'SPCR 183'. There are three rows of white input fields: 'Certificate number:', 'Product name:', and 'Classification:'. To the right of these fields is a larger white box labeled 'manufacturer name/logo'.