



## FIRE-RATED EXPANDING POLYURETHANE FOAM F-90 CLASSIFIED

### GUN VERSION

PROFI-FIX® FR is a fire-resistant, one-component polyurethane foam, especially developed for filling and sealing joints for which there are fire resistance requirements.

PROFI-FIX® FR is B2 (DIN 4102) fire classified and conforms to F-90 enduring temperatures of 900 °C for 90 minutes. It is also smoke and gas proof, resistant to heat, water and chemicals.

Fixing and fire-resistant sealing of partition walls, ceilings and floors, around fire rated windows and doors and for prefabricated construction elements, fire rated expansion joints, ovens and furnaces. It provides excellent heat-insulating and sound absorbing properties, both for interior and exterior applications.

PROFI-FIX® FR ateşe dayanıklı olarak özel formüle edilmiş, tek bileşenli, nemle kürleşen çok amaçlı poliüretan montaj ve dolgu köpüğüdür. PROFIX® FR, B2 (DIN 4102) yangın sınıfında ve F-90 'a göre 90 dakika 900 °C sürekli ısı dayanımlıdır. Duman ve gaz sızdırmazlığının yanı sıra ısı, su ve kimyasallara dayanıklıdır.

Tavan, döşeme ve bölme duvarlarının ateşe dayanıklı şekilde sabitlenmesi, yangın güvenliği ile ilgili kapı ve cam çerçeveleri, prefabrik yapı elemanları ile, fırın ve ocakların çevresinde iç ve dış cephe tüm işlerde kullanılabilir.

PROFI-FIX® FR имеет B2 (DIN 4102) огнеупорную классификацию и соответствует марке F-90 выдерживающий 900 °C в течении 90 минут. А также, пена не пропускает дым, газ, жар, влагу и различные химикаты.

Предназначена для прикрепления и изоляции перегородок в стенах, щелей в полу, в потолке, вокруг окон и дверей, сборных строительных элементов, соединений с высокой температурой, духовок и печей. PROFIX® FR имеет превосходное тепло и звукоизоляционные свойства для внутреннего и внешнего использования.



## TECHNICAL DATA SHEET

PROFI-FIX® FR – FIRE RATED PU GUNFOAM

Page 1  
Issued: 24/06/2006  
Revision No: 0

**Product Description** **PROFI-FIX® FR Fire-Resistant PU Gun Foam is a one-component** polyurethane (PU) foam which expands to fill and seal gaps that require a fire rating. The foam is F-90 classified, cures rapidly and can be trimmed or sanded within an hour. PROFI-FIX® FR forms a strong bond to most building substrates such as timber, brick, stone, concrete, plaster, metals, polystyrene, plaster boards and many plastics.

**Typical Applications**

- Filling gaps and voids that require a fire rating
- Doorframes and windows mounting
- Bulk filling of irregular gaps and voids
- Insulation of pipes
- Roller blinds (sealing of connection joints)
- Heat insulation of water systems, sewage systems and central heating systems
- Fixing and insulating of wall panels, division walls, driver's cabs and boats
- Connecting of wooden prefabricated elements in frame constructions
- Heat insulation of roofs and floors
- Filling of gaps in the building heat insulation.

**Application conditions** Air temperature during application  $-10\text{ °C} \div +30\text{ °C}$ , best results at  $+20\text{ °C}$ . Can temperature during application  $+5\text{ °C} \div +25\text{ °C}$ , best results at  $+20\text{ °C}$ . Surfaces must be clean from dust, loose particles and oil before foam is applied. Soft foam can be removed with acetone, cured foam only mechanically. Cured foam can be painted.

<b>Characteristics</b>	Composition:	4,4'-diisocyanate of diphenylmethane, propellants
	Fire Resistance Class	F 90
	Colour:	grey
	Blowing Agent/Propellant	Liquid Gases F+
	Working temperature (of base)	$+5\text{ °C} \sim +30\text{ °C}$ (optimum $+20\text{ °C}$ )
	Container temperature	$+15\text{ °C} \sim +30\text{ °C}$
	Thermal stability of cured foam	$-30\text{ °C}$ up to $+80\text{ °C}$
	Density:	$0.026 - 0.029\text{ g/cm}^3$ ( $26 - 29\text{ kg/m}^3$ )
	Dimensional stability:	$3 - 5\%$ (at $23\text{ °C}$ , 95% RH, 24 hours)
	Vertical stability in gap	30 mm
	Water absorption	2.5% (after 24 hours)
	Mechanical Strength:	$> 7\text{ N/m}^2$
	Dimensional Strength	$\pm 5\%$
	Thermal conductivity factor	$0.036\text{ W/mK}$
	Flammability	B2 (DIN 4102)
	Solvent (before hardening)	acetone
	Tack free time	10 – 12 min ( $23\text{ °C/RH } 50\%$ )
	Cutting time	$>20 - 25\text{ min}$ ( $23\text{ °C/RH } 50\%$ )
	Time of complete hardening	24h
	Yield:	750 ml: ab. $36 - 40\text{ dm}^3$ ( $23\text{ °C/RH } 50\%$ )

**Packaging and Storage** Product is packed into aerosol container of 750 ml capacity. Storage time is up to 12 months (since the production date). Store in the dry and cool place in factory original containers. Storage temperature:  $+5\text{ °C}$  to  $+30\text{ °C}$  (for the short time it may be stored under the temperature not lower than  $-5\text{ °C}$ ). It is not allowed to store containers under the temperature higher than  $+50\text{ °C}$  and near to the naked fire. To avoid the valve choking with hardened foam, store containers in the vertical position (valve up). Container can not be neither squeezed nor pierced, even after complete emptying.

**Safety regulations**

- Can contains diphenylmethane 4,4-diisocyanate,
- Foam is health harmful when inhalation,
- It is recommended to wear protective clothes, glasses, and gloves,
- During the foam application process, the room should be properly ventilated, in case of need apply the airways protecting apparatus;
- Try to avoid direct contact with the human skin, in case of contact with eyes – wash them immediately with water and consult doctor;
- Do not apply the foam near the naked fire and don't smoke during operation;
- Pressurized container;
- Container can not be neither squeezed nor pierced, even after complete empty.
- Don't expose to the temperature exceeding +50 °C
- Don't heat up the foam container exposing on sunlight, the naked fire, heaters, burners, and other artificial heating sources;
- Keep out of the reach of children;
- Transport of containers may be the land transport.

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on PROFI-CHEMICAL's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with PROFI-CHEMICAL's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.