

PRF 009

CHEMICAL BASE: PU

REACTION TIME: 3 SEC

COLOUR: WHITE

VISCOSITY: LIQUID

DENSITY: 0,125

Polymix PRF 009 is a two components foam which has polyurethane as basis, is grey white, polymerizes itself at room temperature in very few seconds.

PRODUCT DATA

PROPERTIES	COMPONENT A	COMPONENT B	MIXED
Chemical base	Polyol	MDI	Polyurethane
Mixing ratio by volume	1,00	1,00	
Mixing ratio by weight	0,89	1,00	
Colour	Natural	Natural	White
Apparence	Liquid	Liquid	Foam
Viscosity (mPa*s)	800	800	15.000
Relative density	1,04	1,20	1,12
Application temperature (°C)			+10 / +30
Gel time (10 g @ 20 °C)			3 sec
Expansion time (10 g @ 20 °C)			15 sec
Cut after			3 min
Polymerization completed (10 g @ 20 °C)			120 min
Density (kg/l)			0,125
Hardness			Rigid
Service temperature (°C)			-36 / +90
Retention time (months)			12
Storage temperature (°C)			+20 / +30



APPLICATION AREA

Thanks to its versatility, PRF 009 is used to bind, to fill, to paste and to isolate many different substrates. The principal applications are: installation and heat insulation of door and window fixtures, thermal insulation of water piping system, bathtubs, thermo hydraulic systems, ecc.; applications where a good acoustical and/or electrical insulation is needed, insulating panels fixing which are of polystyrene, polyester extruded, cork, ecc.; sealing and filling of holes, cracks and cavities; junctions and sealings for works on roofs and walls; tiles consolidation, pasting of corrugated metal and tiles for roofing surfaces; particularly light and resistant in model-making.

Polymix PRF 009 is particularly suited any time an extremely rapid hardening product is required.



PROCESSING

The pre-treatment of thermoplastic materials like PVC, polycarbonate, polypropylene, PMMA, ecc., can be made using a mixture of light ethers or with isopropanol. Avoid using solvents.

The pre-treatment of all the other surfaces can be made using acetone or trichloroethylene.

All the surfaces have to be perfectly cleaned and dried, without any trace of dust, oils and detached parts. If it is necessary to intervene mechanically (dented brush, sandpaper, flexible) and subsequently remove dust. The cavities must be partially filled since their filling will be completed with the automatical expansion of the material. For future hardening, prospective beading can be cut with a knife or by sanding.



PRODUCT APPLICATION

Polymix PRF 009 is available in bi-component syringe, in bi-component cartridge (side by side or coaxial), or in different size drums.

Anyway, blending should be made through static mixer composed by a minimum of 21 elements. A lower number of components doesn't allow a complete mixing. A higher number of components would increase speed of the chemical reaction of hardening. Static mixer are for a unique use only.

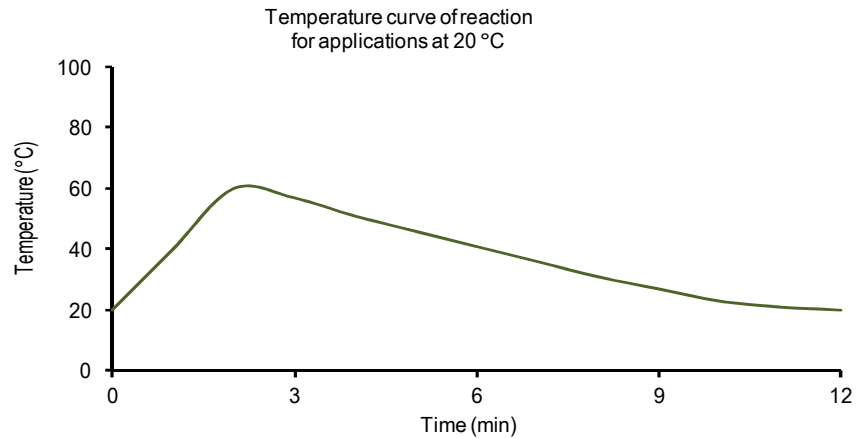
Bi-components cartridges can be used through manual applicators or specific pneumatic tools, based on capacity and cartridge shape.

For process and in continuative applications, automatic dosage system for low viscosity materials can be used. Base on specific needs Inchimica's technical service is available to offer advice for the correct machinery to use with specific requirements.



REACTION MECHANISM

The speed of the hardening reaction is mainly influenced by the application temperature. In conditions of standard temperature (20 °C), the foam is cut after 2 minutes and reaches its maximum hardness within two hours of the extrusion.



**TECHNICAL CARATTERISTICS
OF CURED PRODUCT**

- **Color:** White
- **Expansion Ratio:** 1:9
- **Density:** 125 kg/m³
- **Mechanical Resistance:** 0.2 N/mm²
- **Closed cell contents:** > 90%
- **Water Absorption:** 2.0% vol
- **Thermal Resistance:** 0.04 W/(m*K)
- **Fire Resistance:** self-extinguishing

The values, obtained with standard methods on typical lots, are exclusively provided as technical information, and not as product specification.

In any case, it will be up to the user to test the product for a specific situation and then give his final approval.



PRODUCT STORAGE

Polymix PRF 009 has a shelf life of 12 months from the initial production as long as it is stored in a cool and dry place, between +20 °C and +30 °C. Expiry date is indicated on the label.

Once opened, the cartridges will last until the expiry date (as long as the above conditions are met) leaving the last mixer used onto the cartridge.

Prior to ulterior usage, clean the top of the cartridge to eliminate possible solidified foam residuals which could obstruct the product emission.



PRODUCT HANDLING CAUTIONS

Polymix products are generally quite harmless to handle provided that certain precautions are normally taken when handling chemicals.

The uncured materials must not be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected.

The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection.

The skin should be thoroughly cleaned at the end of each working period by washing with soap and warm water. The use of solvents has to be avoided. Disposable paper should be used to dry the skin.

Adequate ventilation of the working area is recommended.

These precautions are described in greater detail in the safety data sheet for the individual products and should be referred to for further information.



NOTES

The information and, in particular, the recommendations relating to the application and end-use of Inchimica® products, are given in good faith based on Inchimica®'s current knowledge and experience of the products when properly stored, handled and applied under normal conditions.

Inchimica® cannot assume responsibility for the results obtained by others over whose methods we have no control.

It is the user's responsibility to determine suitability for the user's purpose of any production method mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof.

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Users should always refer to the most recent issue of the technical data sheet for the product concerned, copies of which will be supplied on request.