

PRODUCT

Pyrok® 9145 is an aqueous multi-functional polymer contact adhesive, with high immediate bond strength and high levels of tack when dry. This adhesive can be spray or brush/roller applied.

Pyrok® 9145 can be used to bond various substrates, such as plywood, fibrous/rubber flooring, spaceage, foamed plastics, plaster and metals to themselves and each other.



Performance Characteristics

Shear Strength:

Method: 25 x 25 mm overlap shear specimens were prepared as follows: Alcohol wiped + abraded P180 + alcohol wiped. Pyrok® 9145 applied to both substrates, and bonded when dry, with assembly pressure of 3 kg/cm² minimum. Pyrok® 9145 was allowed to dry over 7 days at room temperature (23°C) and 50% RH. Samples were tested at a separation rate of 10 mm/min.

180° Peel Strength (N/25mm):

Method: Aluminium, glass and plastics wiped with IPA, 180° peel specimen rigid substrate to cotton duck, 25 mm width, dried for 7 days at 23°C, 50% RH before being tested or aged. Testing speed set at 150 mm/min

180° Peel Strength (N/25mm) of various floorings and substrates:

Method: Metals wiped with IPA, 180° peel specimen rigid substrate bonded to various types of flooring, 25 mm width, dried for 7 days at 23°C. 50% RH before being tested. Testing speed set at 150 mm/min.

Technical Characteristics

Base Material	Polyurethane-dispersion
Consistency	Liquid
Specific Gravity / g ml-1	1.04
pH	7.8

Packaging

Colour	Wet: Light Green Dry: Dark Green
Shelf life	6-12 Months from date of dispatch from Forgeway, when stored in original container at 21-25°C at 50% Relative Humidity +5°C and +25°C.

Storage Conditions:

- For maximum storage life ensure product is kept at 15-25°C (59-77°F)
- Higher temperatures reduce the storage life of Pyrok® 9145
- Lower temperatures increase viscosity of product.
- Water-based contact adhesives are unusable when stored below 5°C (41°F) for prolonged amounts of time

Substrate	Textile/fleece backed flooring	Smooth Rubber Flooring	Vinyl Flooring
Aluminium	22.50	47.50	81.50
Steel	37.50	75.00	98.25
Primed Steel	33.50	42.50	32.50
Stainless Steel	56.25	48.50	64.25
Composite floor sheet	48.25	94.75	85.25
Plywood	66.50	150	105

Handling / Application Information

- 1. Surface Preparation:** Surfaces must be clean, dry and free of dust, to ensure a good bond. An appropriate solvent such as IPA can be used to aid in the removal of oils and dirt.
- 2. Adhesive Preparation:** Ensure adhesive is stirred before use and ensure that lid is kept on when not in use.
- 3. Application:** It is important to ensure that a generous, even coat of adhesive is applied to both surfaces. A uniform, glossy film is a good sign that sufficient adhesive has been applied, dull spots when dry indicate that insufficient adhesive was applied. Porous substrates and some fabrics may require more adhesive or a second coat to be applied.
- 4. Coverage:** This is dependent on the porosity of the substrate. Highly porous substrates and some fabrics will require more adhesive and thus lower coverage.
- 5. Drying time:** Typically, PYROK® 9145 has a dry time between 30-40 minutes under normal humidity and temperature conditions. Colour of adhesive changes from light green to a dark green upon drying. Once adhesive is dry the bond must be completed within ideally four hours. However, it is still possible to bond after 24 hours. Dry time is highly dependent on the temperature and humidity conditions in which the adhesive is being applied. High humidity or low temperatures will slow the drying. Whereas high temperatures will speed the drying.
- 6. Assembly:** The two substrates to be bonded can be brought together with or without heat. When heat is used tack is increased and the initial bond strength will be greater, than without heat application. Heat application: the two substrates with dry adhesive applied, can be heated on the adhesive face with a heat gun for a short amount of time and are quickly brought together. A roller (3-inch-wide maximum) is used to ensure adequate contact/pressure. It is important that once the two substrates have been heated, that they are brought together within a few seconds.
- 7. Ambient application:** Bring the two substrates with dry adhesive applied, together and using a roller (3-inch-wide maximum) ensure adequate pressure is applied over the whole surface of the substrates being bonded.
- 8. Cleaning:** It is recommended to clean spills or equipment before the adhesive has dried. Liquid adhesive may be cleaned up using either isopropyl alcohol (IPA) or using water. Dried adhesive may be cleaned using ketonic solvents such as acetone. Ensure you undertake the correct precautions before using solvents.

Remarks, Disclaimer & Health and Safety

Important Notes - Pyrok® 9145 contains water and therefore, spray and pumping equipment should be made from stainless steel for maximum durability. All material hoses should be nylon or PE lined. Packaging's and glands in contact with Pyrok® 9145 9145 should be made of PTFE.

Material hoses previously used with solvent based adhesives SHOULD NOT BE USED, since residual solvents may cause the water dispersion of Pyrok® 9145 9145 to break.

Disclaimer - The variability of materials, substrates and conditions of use is such that no warranty of their functionality for a specific application can be deducted from this information, written recommendation or any other type of suggestion offered. Each user has the responsibility to complete adequate evaluations on the efficacy of the materials offered by Forgeway, of its products, services, recommendations and suggestions for the specific application need, and must accomplish sufficient testing to ascertain that the final product will be safe and sound for the final intent of the end user.

Health and Safety - Refer to Safety Data Sheet (SDS) for further information. Apply the usual industrial hygiene.

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