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PU4650/2 SINGLE COMPONENT MOISTURE CURING LAMINATING ADHESIVE

DESCRIPTION

PU4650/2 is a single component moisture curing urethane adhesive. It has been developed primarily for applications in the laminating of fabrics e.g. kitchen abrasive pads.

PRODUCT APPLICATION

- Economical:** Its ease of spreading, high solids content and one way stick characteristics ensure fast, low cost coverage.
- Strong, resilient, flexible bond:** Besides the diversity of the materials that can be bonded, the cured adhesive exhibits excellent flexibility and resistance to heat, cold, moisture and solvent.
- Resistance to high and low temperatures:** The bond line will withstand wide temperature ranges (-40°C to +140°C) for extended periods without loss of strength.

TYPICAL SPECIFICATION

| Criteria | Typical Value |
|-------------------------|--|
| Colour: | Unpigmented Light Brown (available pigmented) |
| Application Method: | Spray / Roller Applied |
| Solids: | 100% |
| Water mist application: | 10% of adhesive coat weight |
| Viscosity @ 23°C: | 3,400 ± 500mPa.s. |
| Open Joint Time*: | Nominally 2-3 minutes at 19°C with water mist. |
| Press Time*: | Nominally 5 minutes at 19°C with water mist. |
| Coverage: | 100 – 250gsm depending on substrates being bonded. |
| Specific gravity: | 1.13 gm/cc |

Open Times and Press times as a function of Temperature

| | 13°C | 15°C | 17°C | 19°C | 21°C | 23°C | 25°C | 27°C | 29°C | 31°C |
|-------------------|------|------|------|------|------|------|------|------|------|------|
| OJT (mins) | 2.6 | 2.4 | 2.2 | 2.0 | 1.8 | 1.7 | 1.5 | 1.4 | 1.2 | 1.1 |
| PT (mins) | 6.5 | 6.0 | 5.5 | 5.0 | 4.5 | 4.3 | 3.8 | 3.5 | 3.0 | 2.8 |

OJT: Open Joint Time (Max time open to air).
PT: Period of time required under pressure in the press.

This information is for general guidance only and may contain inappropriate information under particular conditions of use. All recommendations and suggestions are therefore made without guarantee. Samples will be provided on request to enable customers to satisfy themselves as to the suitability of the product for any specific purpose and to assess the product under their own working conditions.

APPLICATION

- Materials to be bonded must be free from surface contamination, dust, grease, etc.
- Metals should be kept in a warm place prior to bonding to avoid shock cooling of the bond line which leads to protracted curing times. Metals with backing coats or etch treatments are ideal; however, certain grades of aluminium and galvanised steel may require a suitable priming system. Details of priming systems are available upon request.
- The adhesive should be applied to one surface only. The amount of adhesive used will depend upon the porosity of the substrate, but the normal coverage rates are between 100gsm and 250 gsm.
- If required (see specification section) a fine mist of water should then be applied to the bondline at a coating weight 10% that of the adhesive coat weight applied.
- Panels may be assembled immediately after adhesive application or left for the indicated open time (Note: The open time changes with temperature. This should be monitored)
- The panels should be cured in a vacuum or hydraulic press with heat application, if desired to accelerate cure. Press times are indicated in the specification section. Sufficient even pressure must be applied to keep the components in intimate contact during the curing cycle. The pressure required will depend to a great extent on the nature of the substrates, but is usually in the range of 10-14 psi (0.7 - 0.9 kg/sq.cm.).
- At the end of the application run, equipment should be thoroughly cleaned with cleaner PUC5 or NF5.

STORAGE

- Stored in original unopened containers, PU4650/2 has a shelf life of 6 months.
- Store between 5°C and 25°C.

HEALTH AND SAFETY

- PU4650/2 contains a non-volatile isocyanate.
- Avoid prolonged contact with skin.
- In cases of contact with eyes, flush out with excess water and seek medical attention.

Before use, ensure that you have read Health and Safety Data Sheet for this product.

The company will supply, upon request, individual advice in writing in connection with the use and application of its products in all appropriate cases. Customers are urged to make use of this service. This leaflet is provided for general guidance only. All recommendations and suggestions are made in good faith but without guarantee and are subject to the company's terms and conditions.