

# LOCTITE UR 7221

April 2013

## PRODUCT DESCRIPTION

LOCTITE UR 7221 provides the following product characteristics:

<b>Technology</b>	Polyurethane
Product Type	PU Adhesive
<b>Cure</b>	Moisture cure
Condition	Solvent-free
Components	One-component
<b>Application</b>	General assembly
Color	Brown

LOCTITE UR 7221 is a solvent-free, moisture curing one component adhesive based on polyurethane. At room temperature and the required humidity in the joint sufficient strength will be obtained after approximately 2 to 4 hours. For faster curing LOCTITE UR 7221 can be cured in a heated press. Maximum temperature must not exceed 70°C.

### Application Areas

LOCTITE UR 7221 is used for the manufacture of sandwich elements with porous substrates (e.g. wood) which contain humidity.

The substrates can be bonded to one another or to metals, laminated panels, various plastics, rigid foams made of polystyrene, polyurethane and others.

## TECHNICAL DATA

### Loctite UR 7221:

Consistency:	liquid
Density, g/cm <sup>3</sup>	~1.15
Viscosity, Brookfield - RVT, 20°C, mPa.s * Henkel method 10	5,500 to 10,500
Open Time, at 23°C, 50% rh,min	40 to 60
Initial setting time, hrs	2 to 4
Final setting time (23°C), days	2
Consumption, g/m <sup>2</sup>	100 to 200
Tensile shear strength at -40 °C, MPa	>7
Tensile shear strength at 20 °C, MPa	>6
Tensile shear strength at 80 °C, MPa EN 1465 (wood / wood bonding)	>3
Service Temperature, °C	-40 to 80
Short exposure (up to 1 h), °C	100

All technical data based on Henkel test method.

Data with \* are specified.

## DIRECTIONS FOR USE

### Preliminary Statement:

Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

### Pretreatment:

The substrate should be clean, dry, free of dust, oil, grease and other contaminants. The usage of suitable primers on metal surfaces can improve the adhesion and/or the long-term bond stability. The surface of plastic materials should be cleaned, so as to remove any kind of release agents present on the substrate surface. An improvement of the adhesion can be achieved by grinding or sandblasting the surface.

### Application:

Application Temperature : 10 to 35 °C.

LOCTITE UR 7221 is applied to the substrate by spatula or doctor blade, but can also be applied by spraying or rolls.

When bonding substrates without sufficient humidity or which are not moisture permeable, the required amount of moisture has to be provided by other methods.

A proven procedure is the combined spraying of the adhesive simultaneously with water in a fine mist.

In the case of separate adhesive and water mist application, the water must not be sprayed onto the bare metal but on the other substrate or ideally on the adhesive.

Bonding surfaces should be brought together immediately after adhesive application, assuring sufficient contact pressure while curing, preferably in a press.

Since LOCTITE UR 7221 cures by reaction with humidity, open containers must always be properly sealed and protected against moisture immediately after taking out the quantity needed.

For the same reason we recommend to use up opened containers as soon as possible.

### Cleaning:

Fresh, uncured material (cleaning application equipment, substrate contamination etc.) can be removed with LOCTITE SF 8040; cured adhesive can only be removed mechanically.

### Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

**Hazardous Information**  
**Transport Regulations**  
**Safety Regulations**

**Storage:**

When properly stored in a cool, dry location, with the container tightly closed when not in use, this product will have a shelf life of at least 9 months.

Recommended Storage: 15°C to 25°C. Storage below 10°C or greater than 50°C can adversely affect product properties. LOCTITE UR 7221 is frost-sensitive.

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The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

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