

GP 20

2K-EP-CONSTRUCTION ADHESIVE

GP 13 is a pasty two-component adhesive that cures at room temperature. The system is also suitable for connecting metals, ceramics, glass, rubber, hard plastics and most common materials and can also be applied on large areas.



OVERVIEW

- low viscosity
- water-clear
- for colourless cast parts and laminates
- refractive index corresponds approx. to glass

| PHYSICAL SPECIFICATIONS | | | | |
|---------------------------------|------------------|------------------|---------------------|------------------|
| Composition | | GP 20 A RESIN | GP 20 B HARDENER | GP 20 MIXTURE |
| Mixing ratio by weight | | 100 | 30 | |
| Mixing ratio by volume at 25 °C | | 100 | 35 | |
| Colour visual | | water-clear | water-clear | water-clear |
| Viscosity at RT | mPa·s | approx. 150 | approx. 150 | approx. 150 |
| Density | g/m ³ | approx. 1.12 | approx. 0.95 | approx. 1.1 |
| Open time | min | - | - | 40–50 |

Hardening conditions

| Temperature | °C | 10 | 15 | 23 | 40 | 60 | 100 |
|------------------------------------|---------|----|----|----|----|-----|-----|
| Hardening duration ZSF > 1 MPa | Hours | 24 | 20 | 16 | 3 | - | - |
| | Minutes | - | - | - | - | 90 | 15 |
| Hardening duration ZSF > 10 MPa | Hours | 60 | 48 | 25 | 7 | 2,5 | - |
| | Minutes | - | - | - | - | - | 20 |

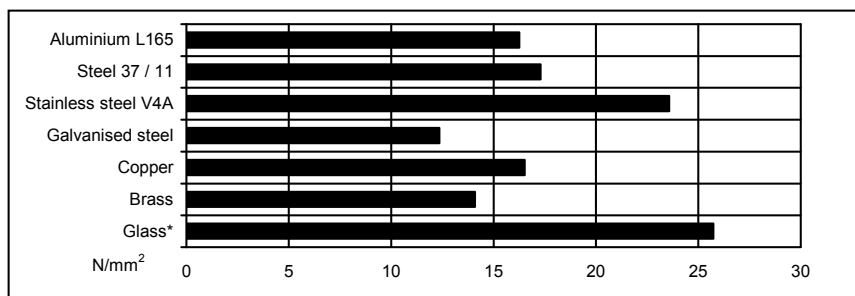
ZSF = tensile shear strength

THERMAL AND MECHANICAL SPECIFICATIONS

Tensile shear strength of different metal bondings (ISO 4587)

Cure: 16 hours/40 °C; test temperature: 23 °C

Pretreatment - sand blasting

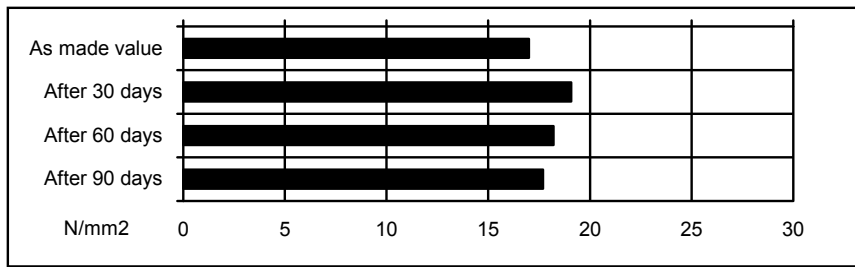


*compression tensile shear strength.

Tensile shear strength versus tropical weathering

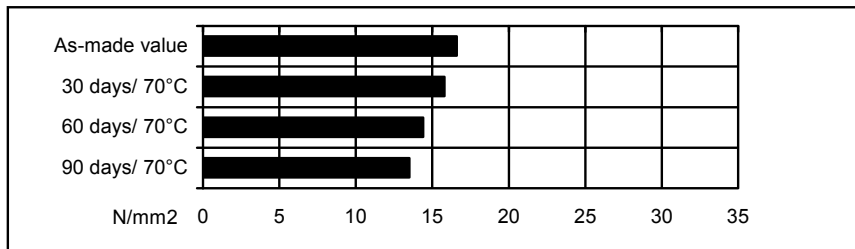
(40/92, DIN 50015; typical average values)

Cure: 16 hours/40 °C; test temperature: 23 °C



Tensile shear strength after heat ageing

Curing 16 hours/40 °C:



Temperature cycle

100 cycles of 6 hours at temperatures of -30 °C to 70 °C: 4.5 N/mm²

Test of colour fastness

For two weeks in a daylight test stand accommodated 3 mm thick test samples showed only very slight yellowness during the visual check and control with a Minolta Chroma Meter, model Cr200.

This testing method corresponds approx. to a 10-year suspension outside.

PREPARING PROCESS FOR BONDING

The strength and duration of a bonded joint are dependent on proper pretreatment of the surfaces to be bonded. The joint surfaces should be cleaned with a good degreasing solvent such as Acetone Spray (Art. No. 3066), alcohol or a firm-specific fat solvent in order to remove all traces of oil, fat and dirt. Best strengths are obtained by either mechanical abrasion or chemical pretreatment. After mechanical abrasion a second degreasing treatment is essential.

Application of the adhesive

The resin/hardener mixture is applied manually or by machine on the pre-treated and dry joint surfaces. A layer of adhesive 0.05 to 0.10 mm thick will normally impart the greatest lap shear strengths. Gößl + Pfaff stresses that proper adhesive joint design is essential for durable bonding. The joint components should be assembled and secured in a fixed position as soon as the adhesive has been applied.

Equipment maintenance

All tools should be cleaned with hot water and soap before adhesive residues have had time to cure. Removing cured residues is difficult and time-consuming. If solvents such as acetone spray are used, operatives should take the appropriate precautions and, in addition, avoid skin and eye contact.

FORM OF DELIVERY

| Description | PU | Article number |
|-------------------------|--------------|----------------|
| GP 20 A resin | 1 kg/bottle | gp20.a01 |
| GP 20 B hardener | 300 g/bottle | gp20.b00 |

HANDLING PRECAUTIONS

Gössl + Pfaff GmbH products can be processed without danger, provided that the precautionary measures usual in handling chemicals are kept.

Unhardened materials are to be kept away from food. In order to avoid allergic reactions, it is urgently recommended to wear impermeable rubber or plastic gloves, eye protection and one-way protective clothing.

After each working day, as well as before breaks and using the toilet, the hands must be thoroughly washed with warm water and soap.

The use of solvents is to be avoided. Afterwards the skin is dried with paper cloths - no textiles. The work space should be well ventilated; maybe suction device above work space.

For further information, please consult the product safety data sheet.

Safety data sheets are deposited in the Internetshop under www.goessl-pfaff.de with the respective product.

STORAGE

GP 20 can be stored at room temperature, if the components stay in their original containers.

The expiry date is indicated on the product labels.

INFORMATION

The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of Gößl + Pfaff GmbH products, under their own conditions before commencing with the proposed application. Gößl + Pfaff GmbH guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. Gößl + Pfaff GmbH disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of Gößl + Pfaff GmbH is strictly limited to reimbursement or replacement of products which do not comply with the published specifications.