

# IGK – Info no. 18

## IGK 511 Butyl Processing Guidelines

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## **IGK 511**

### **PROCESSING GUIDELINES**

#### **General Information**

The present processing guidelines shall give you instructions for the safe use of our sealants, with the objective to achieve the required final properties and meet the quality standards for insulating glass production.

The present processing guidelines will not replace any national standard.

IGK 511 is a single-component, thermoplastic, solvent-free, UV-stable sealant on the base of polyisobutylene, which has been developed especially for the primary sealing of insulating glass panes.

Sealant IGK 511 is available in solid form, black, in different packaging such as drums or cylinders.

#### **Transport and storage of the product**

In sealed original containers, IGK 511 can be stored for up to 12 months between +10°C and +25°C.

Transport of the product is unproblematic at higher or lower temperatures.

Note: Allow the sealant to reach the right temperature before processing. This might take a while, depending on the temperature difference, possibly up to one week.

When stacking transport pallets with IGK 511 on top of each other, comply with the instructions concerning work safety.

## **Processing of IGK 511**

IGK 511 can be processed on all commercial butyl extruder machines and manual extruders.

The adhesive faces of the spacer must be clean, dry, fat and oil free. IGK 511 adheres on all conventional spacers from steel, stainless steel, aluminium and plastic used in the insulating glass industry.

As required by EN 1279/GMI, the IGK 511 batch used in the production must be checked daily due to possible fluctuations in the spacer quality. The spacer profiles should be acclimatized enough for carrying out a faultless adhesion check.

Please contact our application technology department, if required.

## **Quality check on the IGK 511**

### **Incoming goods inspection**

#### **Packaging and labelling**

Check the packaging for damages on delivery. Damaged, deformed or leaking containers should not be processed. Defects must be reported to the delivering driver and confirmed by him on the delivery note; in addition, it should be reported to IGK.

Each drum or cylinder is labelled with product name and batch number. The batch number must be recorded in the scope of the quality control and reported to IGK in case of a claim.

Check before processing:

When opening 200 kg drums, make sure that no dirt/water can fall from the lid onto the surface of the IGK 511.

## Quality checks during processing

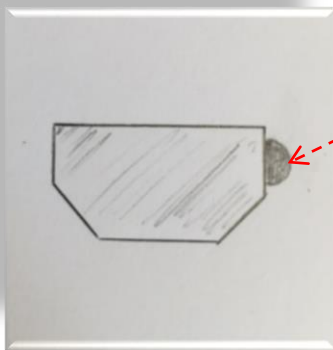
IGK 511 is extruded at temperatures of approx. 110-140°C. Before starting the extrusion, the primary sealant must be pre-heated from the correct storage temperature to at least 110°C (at least 1 h).

The pressure to be set on the processing machines depends on the manufacturer. Please observe the indications of the applicable machine manufacturer.

The amount of IGK 511 should be 2.5 g  $\pm$  0.25 g per running meter spacer profile and side.

The application amount IGK 511 is influenced by the temperature pressure and belt velocity.

The application should not be interrupted and must be done in hemispherical form.

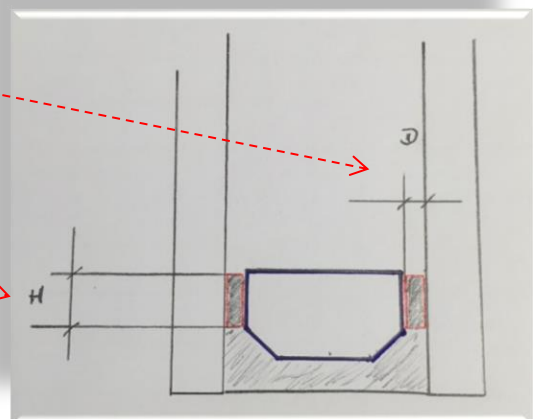


IGK 511, hemispherical application, dia. approx. 3 mm

The position of the IGK 511 "round string" must be centrally on the side. After pressing, IGK 511 may neither enter the gap between the discs nor the level of the spacer.

max. thickness IGK 511  $D = 0.3 \text{ mm}$

max. height IGK 511  $H = 3 \text{ mm}$

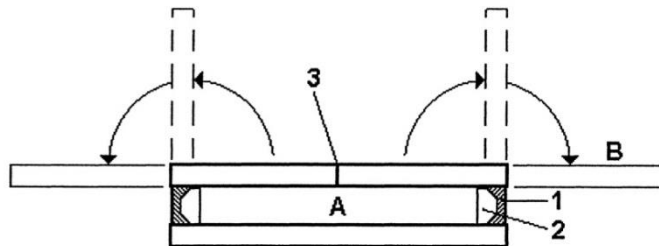


## General adhesion primary sealant - spacer - glass

The adhesion test of IGK 511 with spacers on glass can be done as follows:

### “Butterfly test”

The butterfly adhesion test for primary sealants ( IGK 511/IGK 511 S) is part of the butterfly test for secondary sealants described in the processing guideline for IGK 130 and for IGK 330/311 page 7 under point Butterfly test.



#### Key

- 1 Sealant
  - 2 Spacer
  - 3 Cutting line
  - A Position A
  - B Position B
- Length and width of the specimen adapted to washer and press

Wash two glass panes, approx. 300 x 300 mm and furnish with a spacer frame. This will be coated with IGK 511. After fitting the frame, seal two opposite sides.

After 24 h, one glass pane will be cut, as shown in the drawing above.

The opening of one side should be done slowly, within approx. 10 sec.

A 100% cohesion break should be visible in the sealant.

### **Further information for processing**

When removing the isolating glass panes with the vacuum lifting device, the external sealant is not yet contributing to the mechanical stability of the isolating glass.

Therefore, there is a risk that one or more glass panes will slide.

Make sure to take appropriate safety measures and use a supporting device for the vacuum lifting device, if required.