

KÖMMERLING CHEMISCHE FABRIK GMBH

# **AWT 1897** TEST REPORT APPLICATION SERVICE DEPARTMENT

#### CUSTOMER

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#### TASK

### Short term (Audit) test according to EN 1279.6 In addition, gas concentration and dimensions.

"Film in Spacer" Insulating Glass

RESULT

Unit 6704 (III 1) fulfilled the requirements.

Unit 6705 (II 1) did <u>not fulfill</u> the requirements. Moisture penetration index "I" is too high.

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A group member of

ADHESIVES & SEALANTS

# TEST REPORT

# KÖMMERLING

# **Test specimens**

6 Test units (2x Fogging test; 4x Audit test) received 09. February 2015

Sample size:	350 x 500 mm
Total thickness:	32 mm
Assembly [mm]:	Glass 4mm – Spacer 24mm (including PET film) – Glass 4mm
Spacer material:	Rolltech Ferrotec, bended, soldered connection
Secondary sealant:	Kömmerling GD 677HM
Primary Sealant:	Kömmerling GD115
Gas filling:	90% Argon
Desiccant:	Grace Phonosorb 551 #1000268015
Glass 1:	Float
Glass 2:	lowE

# **Performed test:**

#### Short Term Test according to EN 1279 part 6

Constant Climate: 3 weeks

Reconditioning: 2 days

room temperature

+58°C / 100% rel. hum.

Test performed based on following standards: DIN EN 1279-6 Short Term Test annex B.4.2



#### **Gas Concentration**

Determination with "Spark-lite Analyzer".

This evaluation is only for estimation of the gas retention of the IGU's. It is not accredited and not part of the European standard EN 1279.6

#### Dimension

Measuring of IGU thickness, before and after climate stress. Measure point is on 4 corners and 4 sides.

Corner 1	Side 1-2	Corner 2
Side 4-1	Test unit	Side 2-3
Corner 4	Side 3-4	Corner 3



# Results

Moisture penetration index "I" and gas concentration.

Test unit N°	Storage	Т <sub>і</sub> [%]	Т <sub>f</sub> [%]	Total desiccant amount [g]	l Index %	Argon gas concentration [%]
6705 (II 2)	23°C / 50% r.h.	1,78		23,9		98,3%
6706 (III 2)	23°C / 50% r.h.	1,81		31,7		98,8%
		T <sub>iav</sub>				
		1,79				
6703 (II 1)	58°C / >95% r.h.		5,33	30,6	19,44	97,7%
6704 (III 1)	58°C / >95% r.h.		3,32	33,7	8,39	97,7%

 $^{\star}$  assumption  $T_{\text{cav}}$  constitute 20 %

T<sub>i</sub> initial moisture content of the desiccant, before testing

T<sub>f</sub> final moisture content of the desiccant, after climate stress (3 weeks 58°C 100% r. h.)

I moisture penetration index

Requirement: The acceptable limit of the moisture penetration index I is 8,5 %.

#### Dimensions

No significant change in thickness / dimensions.

- Test unit 6703 shows an increase of 0,16 to 1,10 mm
- Test unit 6704 shows an increase of 0,09 to 0,95 mm

Remarks:

Secondary seal depth in wide areas is below 3 mm, sometimes only 2 mm.





Please note: All given data are based on careful examination in our laboratories and our past practical experience. These are non-binding indications. Given the high number of materials appearing on the market and the different methods of use which are beyond our influence and control, we naturally cannot accept any responsibility for the results of your work, also with regard to third party patent rights. We recommend that sufficiently thorough tests be carried out to as certain whether the product described will meet the requirements of your particular case

i.V. RALF STRETZ

#### i.A. DIETER GANTNER

#### **APPLICATION TECHNOLOGY**

