Test report

REPORT NUMBER:
863918

DANISH TECHNOLOGICAL INSTITUTE

Teknologiparken
Kongsvang Allé 29
DK-8000 Aarhus C
+45 72 20 20 00
Info@teknologisk.dk
www.teknologisk.dk

CPR NB 1235

CLIENT: Kastrup A/S
Mosebyvej 40
DK-7500 Holstebro

SPECIMEN: Sliding door, further details can be found on page 2.

SAMPLING: The test material was forwarded by the client and received at the Danish Technological Institute on 2019-03-29. The test material was labelled 863918.

TEST PERIOD: The testing was carried out on 2019-04-01.

METHOD:

EN 14351-1:2006 +A2:2016:	Windows and doors – Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets.
EN 1026:2016:	Windows and doors – Air permeability – Test method
EN 1027:2016:	Windows and doors – Watertightness – Test method
EN 12211:2016	Windows and doors – Resistance to wind load – Test method

RESULTS: Classification of the test specimen according to EN 14351-1 4.5 and 4.14 and the standards mentioned below:

Air permeability: **Class 4** at ± 600 Pa
EN 12207 - Windows and doors Air permeability - Classification

Watertightness: **Class E1200** (1200 Pa)*
EN 12208 -Windows and doors - Watertightness – Classification

*Deviation: EN 1027 Initial three positive pressure pulses are only made to E900 (990 Pa)

The results of the test are given on page 3-6.

STORAGE: The sample will be destroyed after 2 months if nothing else has been agreed in writing.

TERMS: The test has been performed according to the conditions laid down by DANAK (The Danish Accreditation), cf. www.danak.dk, and the general terms and conditions of The Danish Technological Institute. The results from DTI's work in this report, i.e. analyses, assessments and instructions may only be used or reported in their entirety. The customer may not mention or refer to DTI or DTI's employees for advertising or marketing purposes unless the DTI has granted its written consent in each case.

LOCATION: 2019-04-12, Danish Technological Institute, Building and Construction, Aarhus.

Mads O. Fricke
Team Manager, Engineer

Telephone: +45 7220 1851
E-mail: mfri@teknologisk.dk

Mads Møller Hansen
Consultant, Engineer

Telephone.: +45 7220 1141
E-mail: mmh@teknologisk.dk

ilac-MRA DANAK
Test Reg. No. 2

DANISH TECHNOLOGICAL INSTITUTE

Description of test specimen

The test specimen consists of a sliding door, made of wood and aluminium, see drawings in Appendix 1.

Before delivery a subframe was prepared and mounted around the element by the client. The subframe does not hinder the normal functioning of the element. The test conditions and the dimensions of the test specimen are measured by the laboratory and are given in the table below.

Closing condition, according to EN 12519 Windows and pedestrian doors - Terminology, during test: Locked

Width [mm]	Height [mm]	Area [m²]	Length of joint [m]	Temperature [°C]	Relative humidity [%]	Atmospheric pressure [hPa]
3650	2660	9.71	8.4	21.1	28.3	1019

The client has provided the following information about the construction of the test specimen:

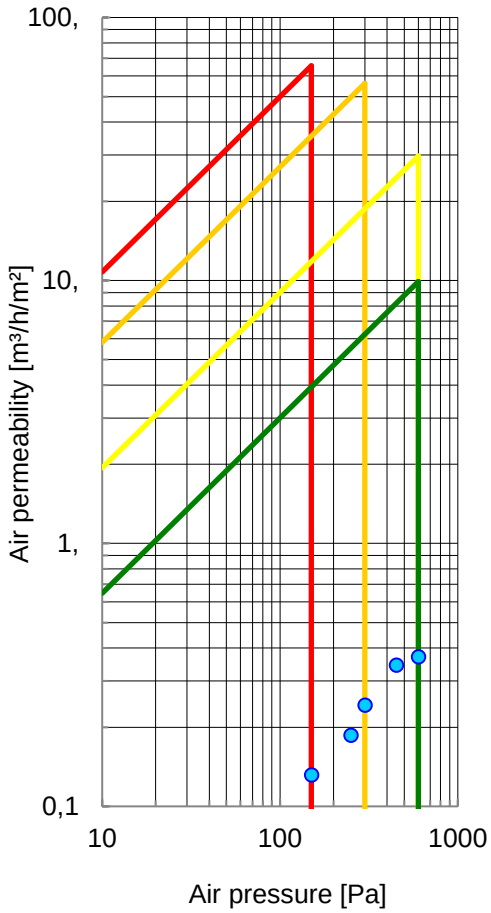
Product name	Skydedør Natur E++
Width x height	3642 x 2657 mm
Gaskets	See drawings appendix 1
Hardware	See drawings appendix 1
IGU	6-16-6-14-6 E-ONE

Test specimen during testing

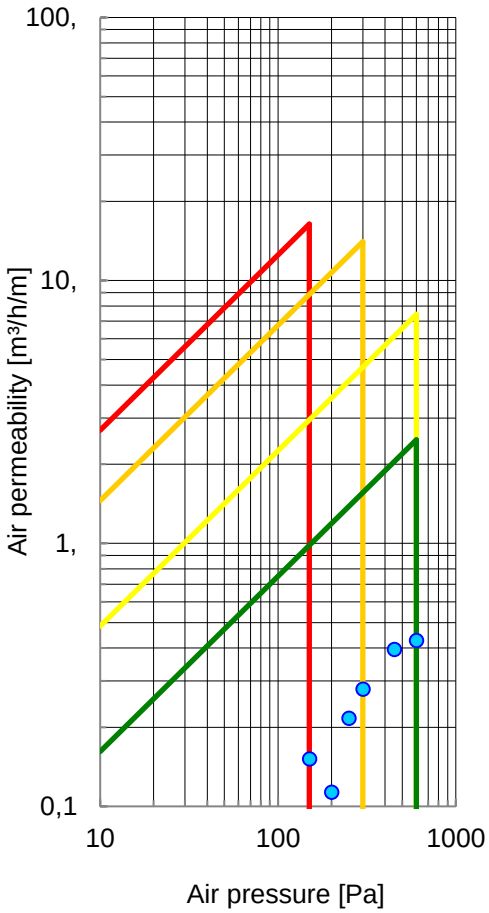
DANISH TECHNOLOGICAL INSTITUTE

Test results – Air permeability – Positive air pressure

Air pressure [Pa]	Air flow Total [m³/h]	Air flow Area [m³/h/m²]	Air flow Length of joint [m³/h/m]	Class Area [-]	Class Length of joint [-]
50	0.41	0.04	0.04	4	4
100	0.64	0.07	0.08	4	4
150	1.26	0.13	0.15	4	4
200	0.94	0.10	0.11	4	4
250	1.79	0.19	0.22	4	4
300	2.36	0.24	0.28	4	4
450	3.34	0.34	0.39	4	4
600	3.59	0.37	0.43	4	4



Air permeability related to area.



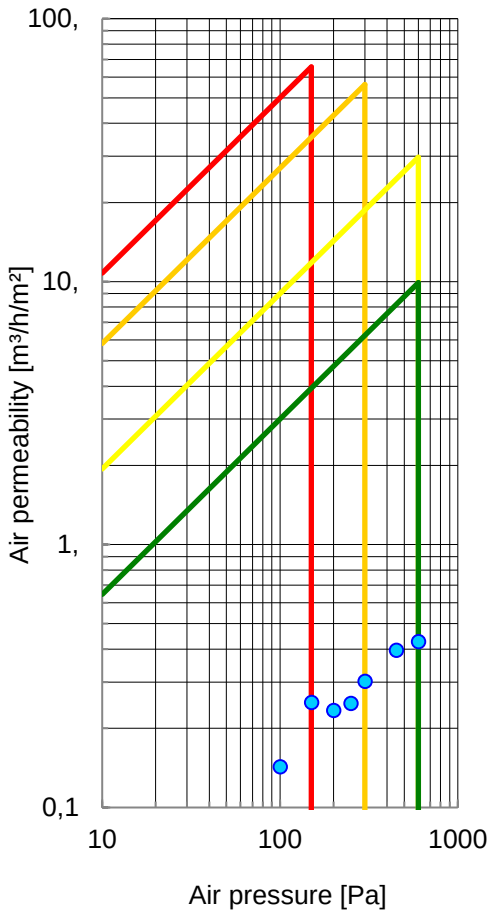
Air permeability related to length of joint.

The graphs show the classification in relation to the area and the length of joint.
Classes 1-4 are indicated by red, orange, yellow and green fields respectively.

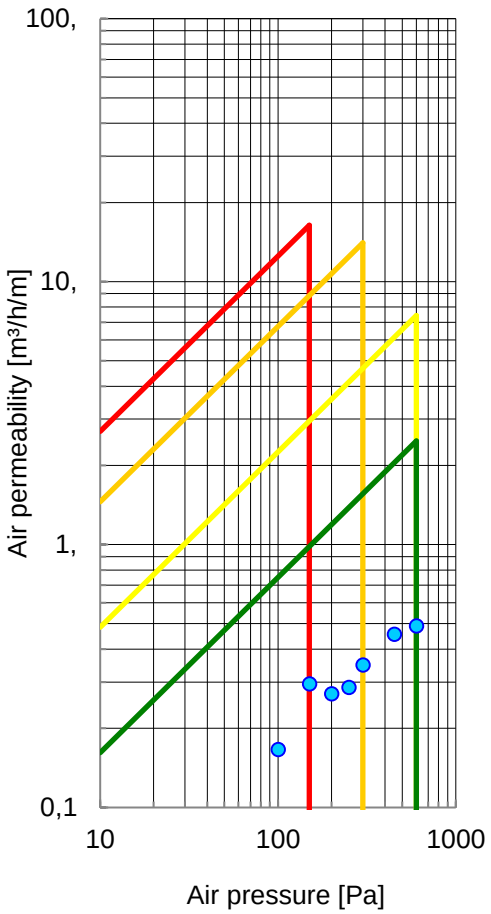
DANISH TECHNOLOGICAL INSTITUTE

Test results – Air permeability – Negative air pressure

Air pressure [Pa]	Air flow Total [m³/h]	Air flow Area [m³/h/m²]	Air flow Length of joint [m³/h/m]	Class Area [-]	Class Length of joint [-]
50	0.63	0.06	0.08	4	4
100	1.39	0.14	0.17	4	4
150	2.47	0.25	0.29	4	4
200	2.27	0.23	0.27	4	4
250	2.40	0.25	0.29	4	4
300	2.94	0.30	0.35	4	4
450	3.85	0.40	0.46	4	4
600	4.15	0.43	0.49	4	4



Air permeability related to area.



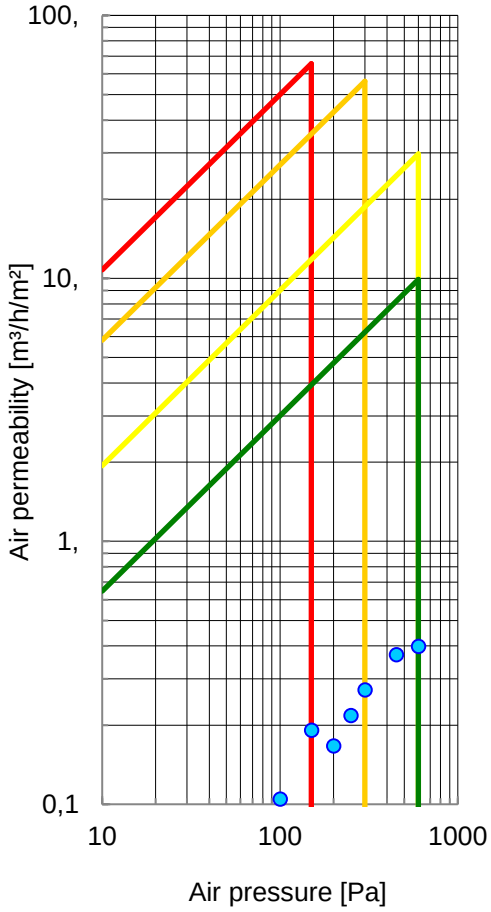
Air permeability related to length of joint.

The graphs show the classification in relation to the area and the length of joint.
Classes 1-4 are indicated by red, orange, yellow and green fields respectively.

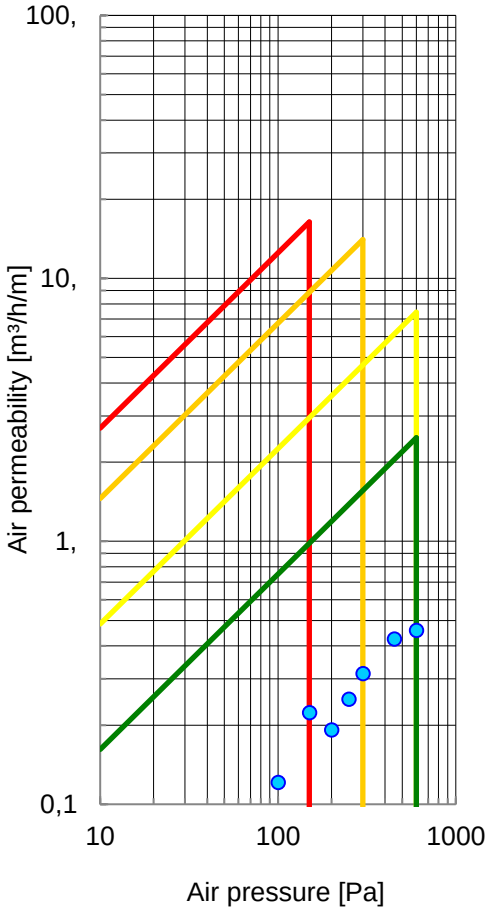
DANISH TECHNOLOGICAL INSTITUTE

Test results – Average air permeability

Air pressure [Pa]	Air flow Total [m³/h]	Air flow Area [m³/h/m²]	Air flow Length of joint [m³/h/m]	Class Area [-]	Class Length of joint [-]
50	0.52	0.05	0.06	4	4
100	1.01	0.10	0.12	4	4
150	1.86	0.19	0.22	4	4
200	1.61	0.17	0.19	4	4
250	2.10	0.22	0.25	4	4
300	2.65	0.27	0.31	4	4
450	3.59	0.37	0.42	4	4
600	3.87	0.40	0.46	4	4



Air permeability related to area.



Air permeability related to length of joint.

The graphs show the classification in relation to the area and the length of joint.
Classes 1-4 are indicated by red. orange. yellow and green fields respectively.

DANISH TECHNOLOGICAL INSTITUTE

Test results – Watertightness

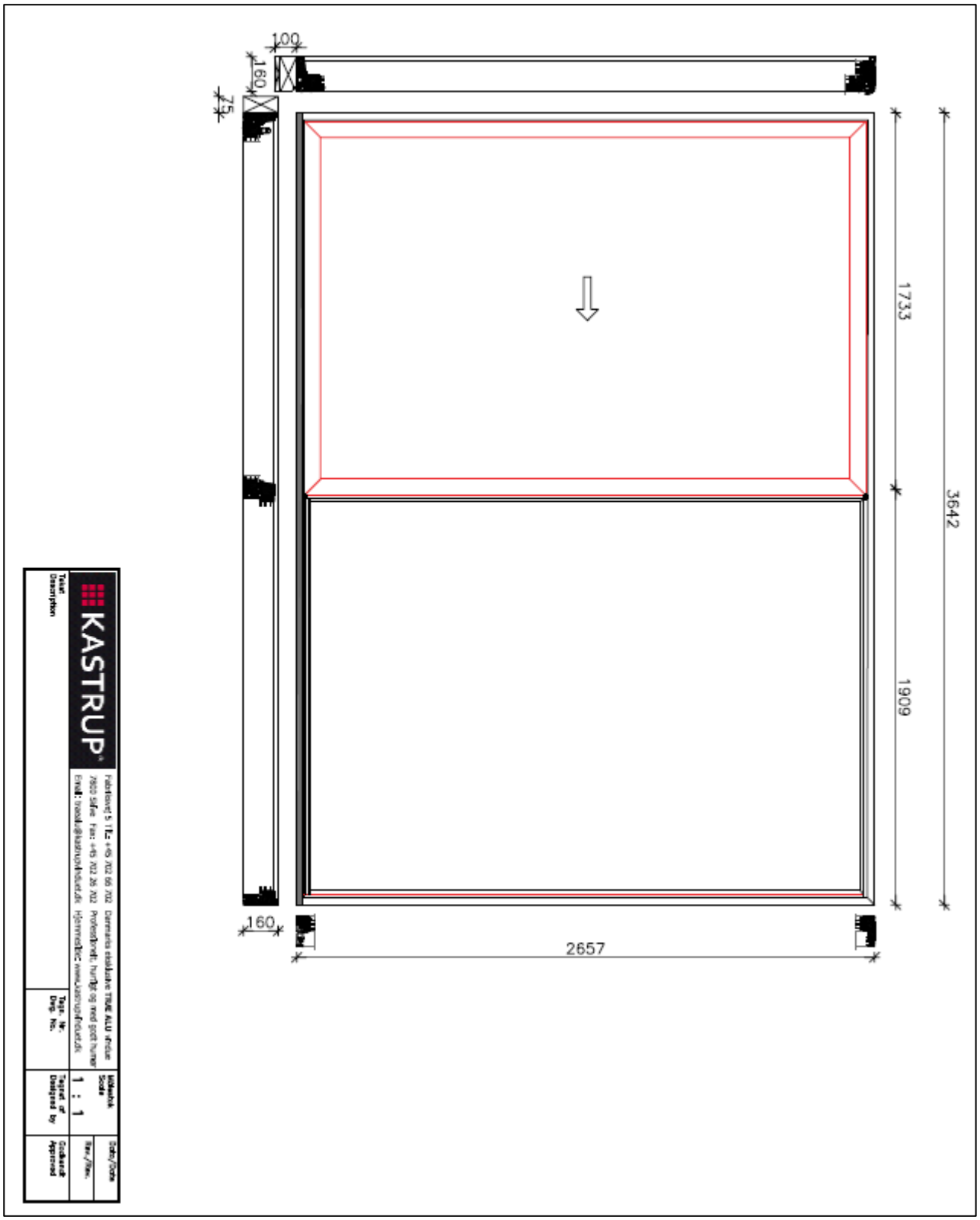
Air pressure [Pa]	Duration [min]	Observations [-]	Class [-]
0	15	No water penetration	1A
50	5	No water penetration	2A
100	5	No water penetration	3A
150	5	No water penetration	4A
200	5	No water penetration	5A
250	5	No water penetration	6A
300	5	No water penetration	7A
450	5	No water penetration	8A
600	5	No water penetration	9A
750	5	No water penetration	E750
900	5	No water penetration	E900
1050*	5	No water penetration	E1050
1200*	5	No water penetration	E1200

* Initial three positive pressure pulses are only made to E900 (990 Pa)

Test specimen during testing

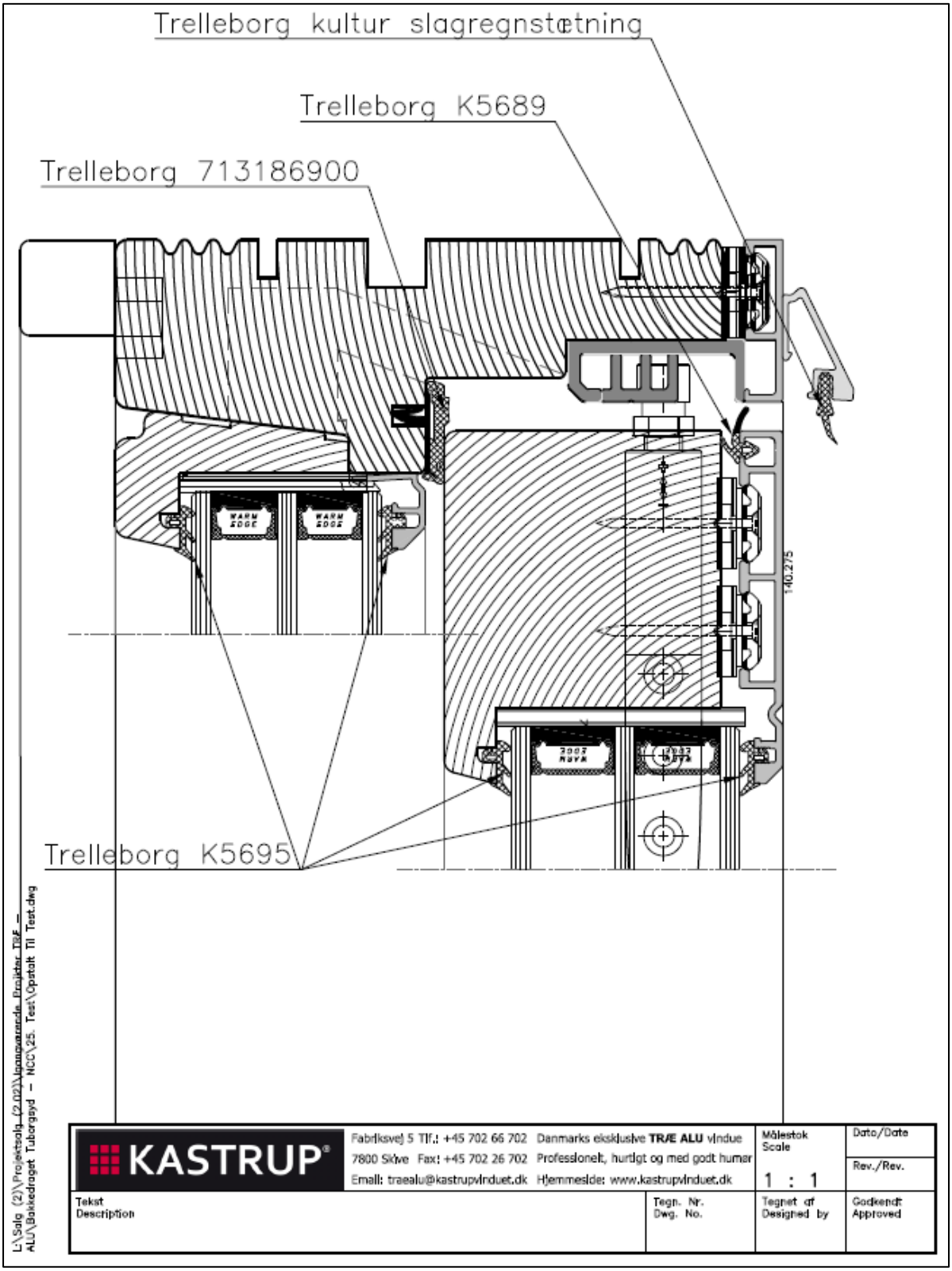
DANISH TECHNOLOGICAL INSTITUTE

Appendix 1: Drawings and photos



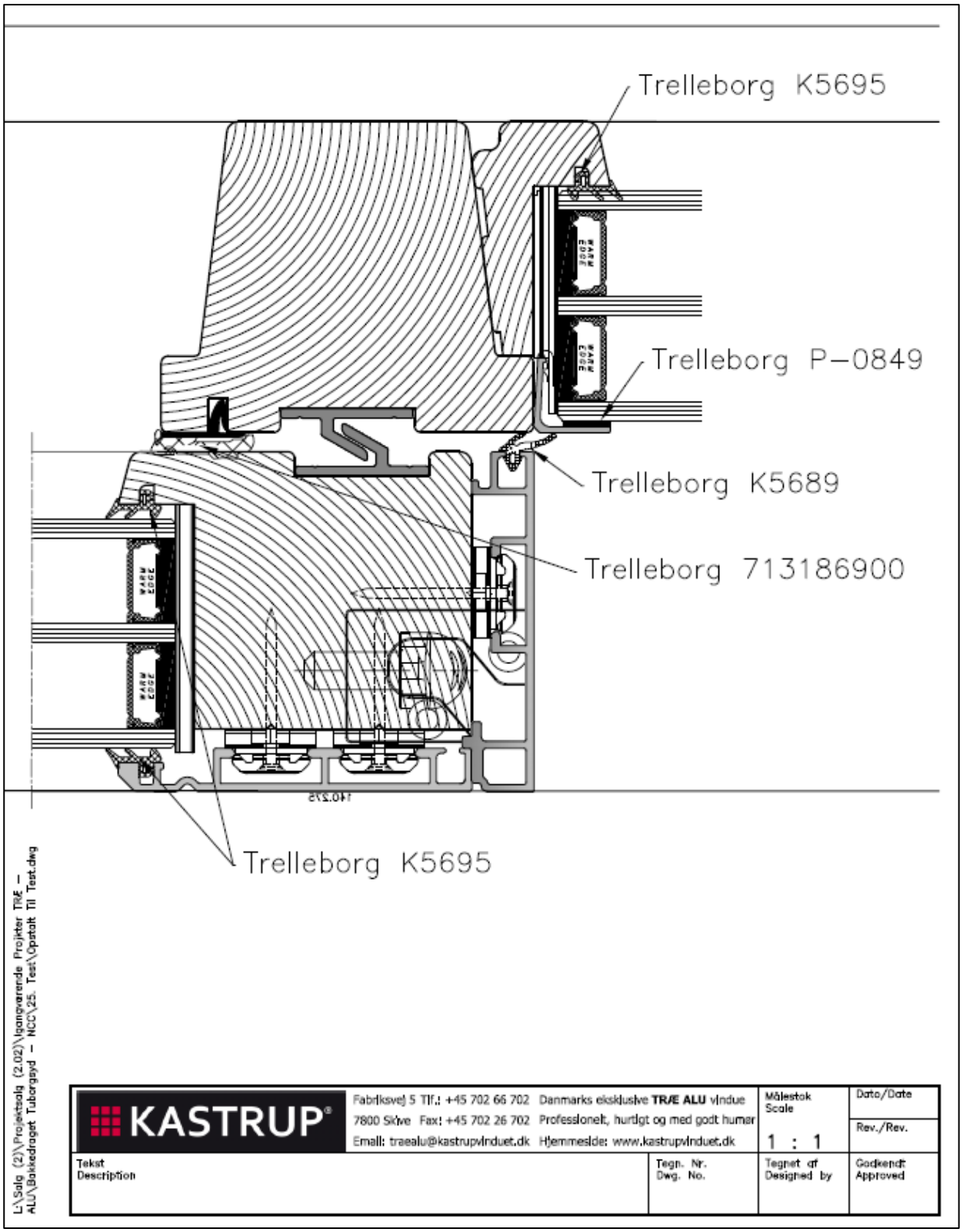
Drawing

DANISH TECHNOLOGICAL INSTITUTE

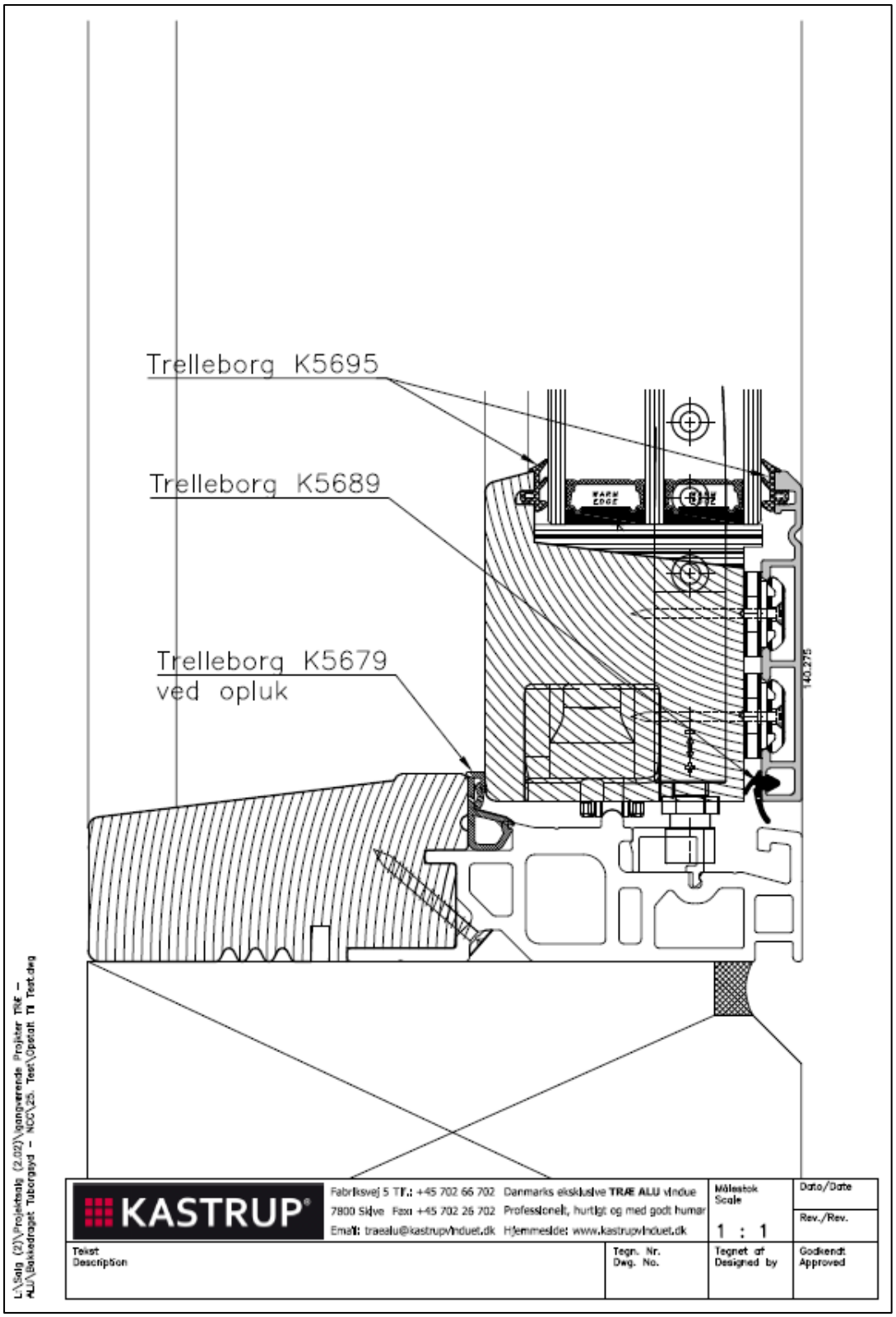


Drawing

DANISH TECHNOLOGICAL INSTITUTE

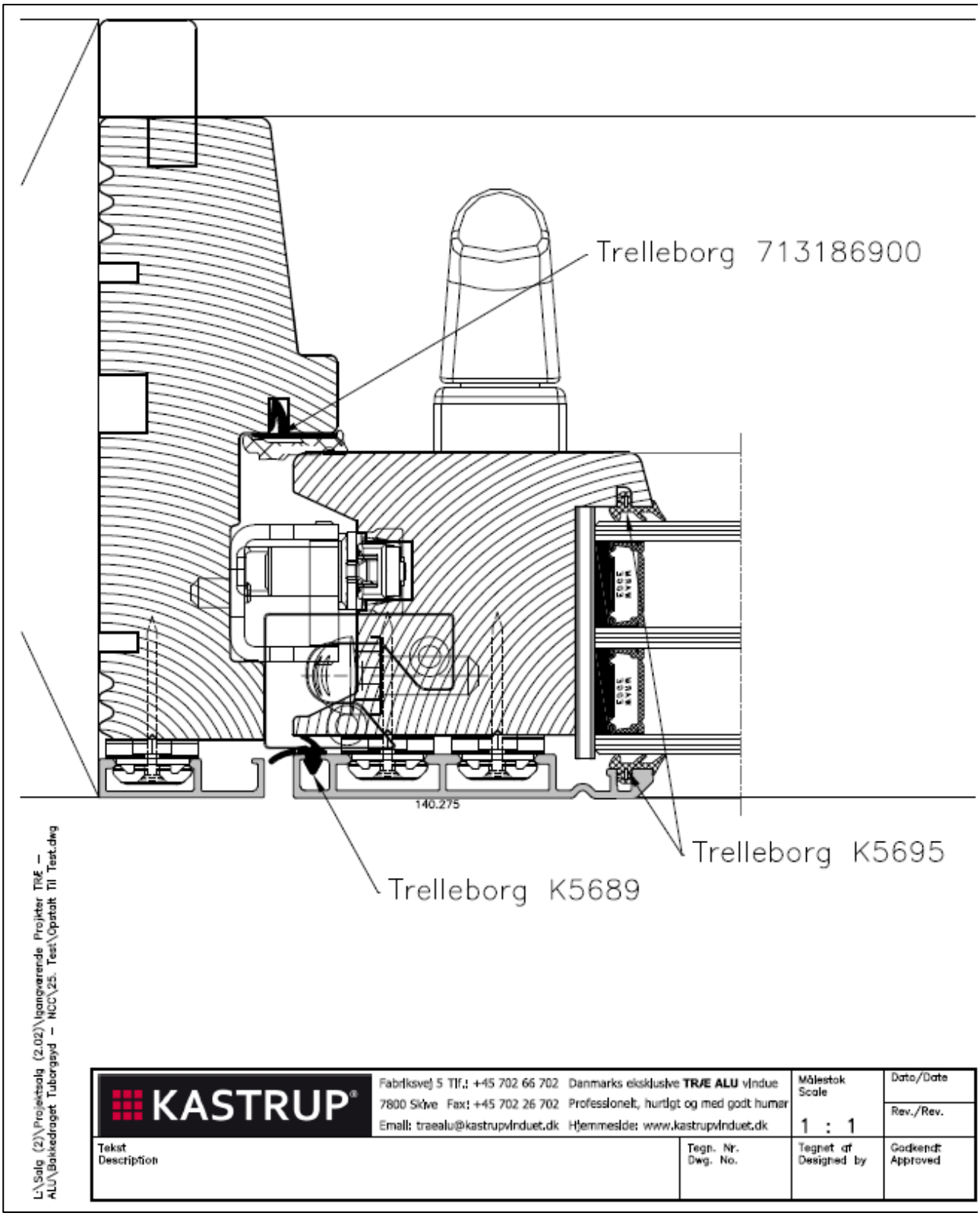


Drawing


Trelleborg K5695
Trelleborg K5689
Trelleborg K5679
ved opluk
KASTRUP
Fabriksvej 5 Tlf.: +45 702 66 702 Danmarks eksklusive TRÆ ALU vindue
7800 Skive Fax: +45 702 26 702 Professionelt, hurtigt og med godt humør
Email: traealu@kastrupvinduet.dk Hjemmeside: www.kastrupvinduet.dk
Målestok Scale
1 : 1
Dato/Date
Rev./Rev.
Tekst Description
Tegn. Nr. Dwg. No.
Tegnet af Designed by
Godkendt Approved

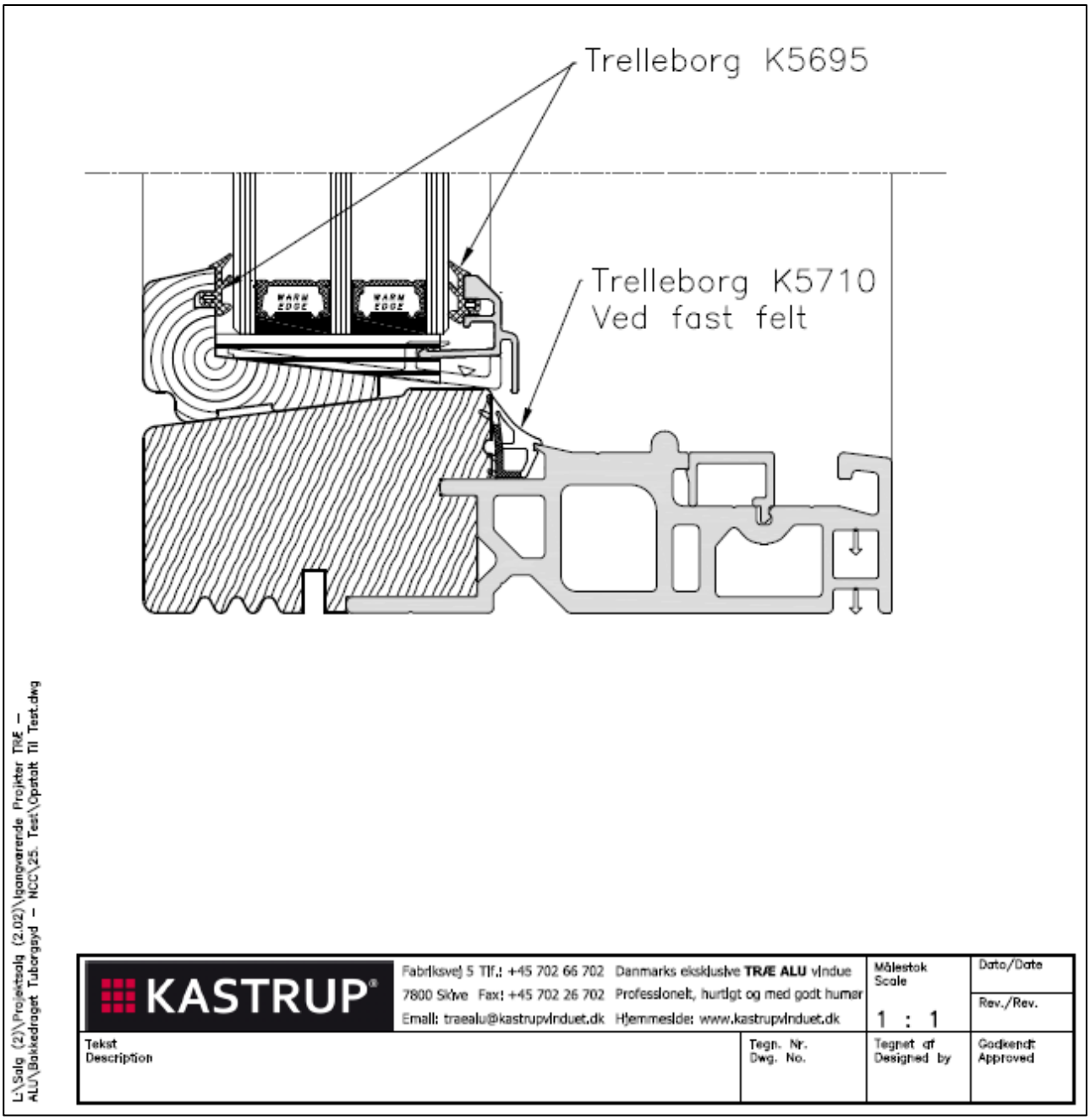
Drawing

DANISH TECHNOLOGICAL INSTITUTE



Drawing

DANISH TECHNOLOGICAL INSTITUTE



Drawing

DANISH TECHNOLOGICAL INSTITUTE

The general conditions pertaining to assignments accepted by Danish Technological Institute shall apply in full to the technical testing or calibration at Danish Technological Institute and to the completion of test reports or calibration certificates within the relevant field.

Construction Product Regulation:

The Danish Technological Institute guarantees that employees carrying out tests to be used together with harmonized standards under notification no. 1235 according to EU regulation 305/2011. article 43. satisfy all the requirements made for capability. integrity and impartiality. You find the CPR here: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0005:0043:EN:PDF

September 2017