

TEST LABORATORY



The test laboratory is accredited in compliance with DIN EN ISO/IEC 17025 by the Deutsche Akkreditierungsstelle GmbH. The accreditation is also valid for products of Regulation EU 2016/425. Test methods not included in the scope of accreditation are marked by a *.



SÄCHSISCHES
TEXTIL
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INSTITUT e.V.

TEST REPORT

Order-No. STFI: P2023 2496.1; T1036_23
Order-No. Client: unknown

Date of report: August 29th; 2024
Responsible person: Kermer, Mathias

Client: Schwender GmbH
Rehleite 2
95445 Bayreuth
GERMANY

Test order:
of: November 20th; 2023
Order receipt: November 24th; 2023
Test material received: November 24th; 2023

Test item:

Marking:	Processing code:
Coated fabric; HT-glass with silicone-coating	Probe 01
Coated fabric; Silica glass, 600 g/m ²	Probe 02

Sampling was supplied by the issuer. The test department is not informed about the sampling procedure.

The comma is used to separator of decimal numbers

Test methods:

Testing atmosphere: (20±2) °C/ (65±4) % humidity)

(1) Determination of resistance to cutting by sharp objects to ISO 13997:1999-08

Test equipment: TDM-100; Serial number: 10EO-0305

Test speed: (2,5 ±0.5) mm/s

Test direction: 45 ° to machine direction of the material

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Test results:

(1) Determination of resistance to cutting by sharp objects to ISO 13997:1999-08

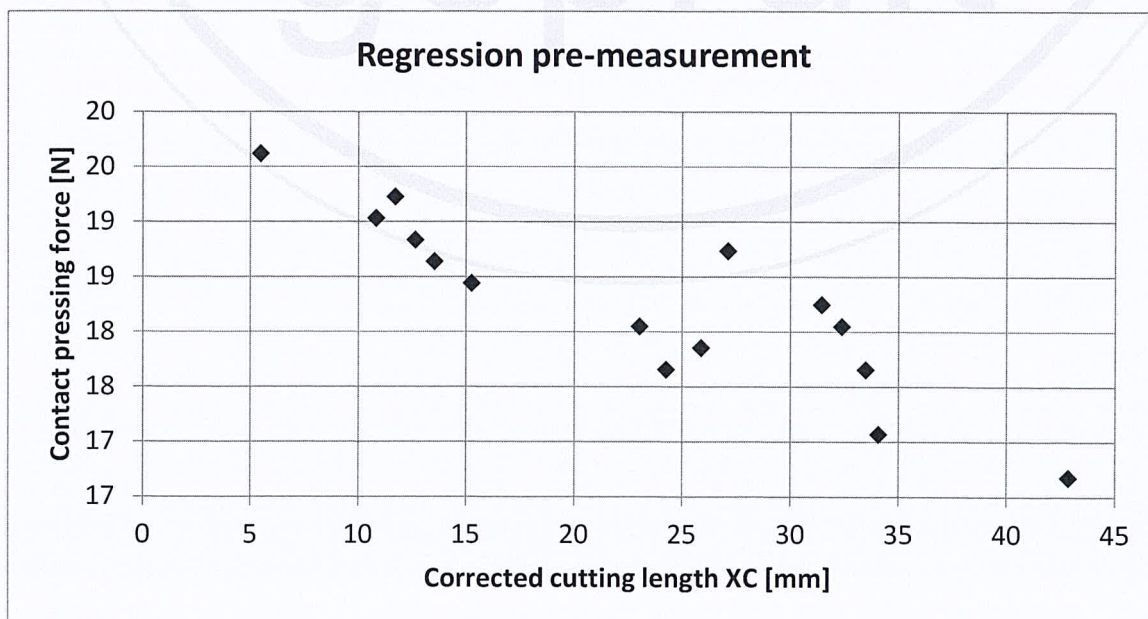
Blade sharpness correction factor: $C = 0,792$

Batch of blades: Box 106 (R-2056P, VVC)

Pre-Measurement

Sample 01 (HT-Glass with silicone coating)				
Cutting stroke length range	Weight on the pan [g]	Cutting length [mm]	Contact pressing force [N]	Corrected cutting length XC [mm]
5 mm – 15 mm	1000	6,877	19,62	5,447
	950	17,067	18,64	13,517
	970	13,635	19,03	10,799
	980	14,765	19,23	11,694
	960	15,932	18,84	12,618
15 mm – 30 mm	955	34,197	18,74	27,084
	920	29,047	18,05	23,005
	910	32,635	17,85	25,847
	940	19,240	18,44	15,238
	900	30,602	17,66	24,237
30 mm – 50 mm	870	42,990	17,07	34,048
	920	40,867	18,05	32,367
	930	39,680	18,25	31,427
	900	42,250	17,66	33,462
	850	54,092	16,68	42,841

Evaluation Pre-Measurement:



Used function of correlation: Linear function with coefficient of correlation $r^2=0,784$

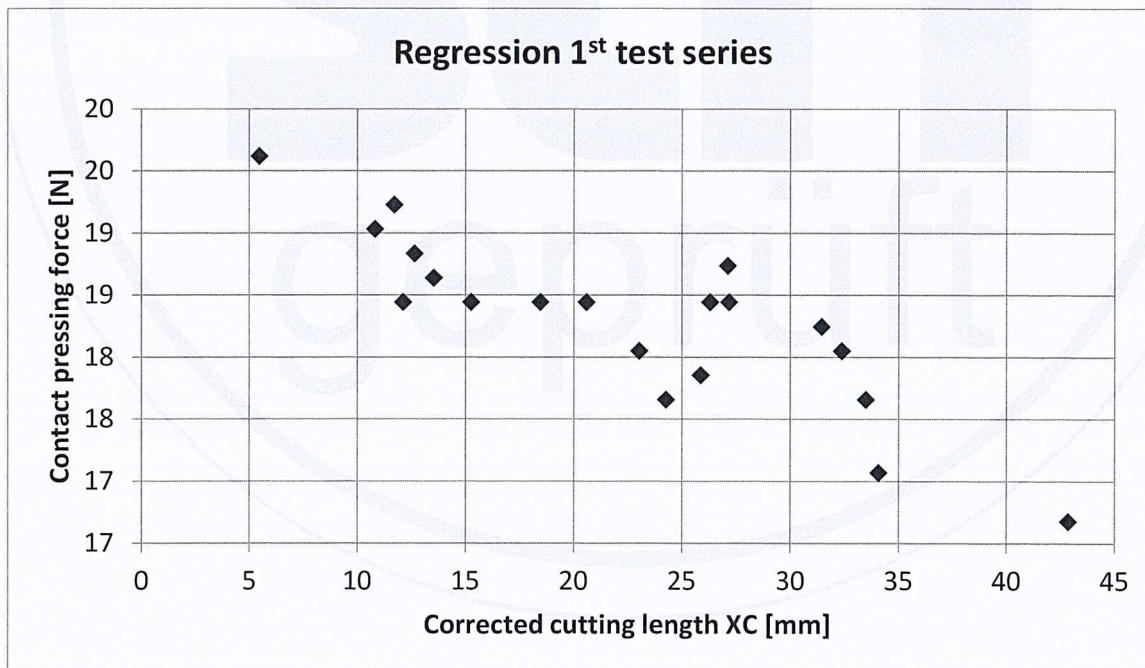
Calculated contact pressing force at a cutting length of 20 mm: 18,44 N

To used weight on the pan for a cutting length of 20 mm: 940 g

1st Test series

Sample 01 (HT-Glass with silicone coating)			
Weight on the pan [g]	Cutting length [mm]	Contact pressing force [N]	Corrected cutting length XC [mm]
940	33,167	18,44	26,268
940	15,267	18,44	12,091
940	34,275	18,44	27,146
940	25,970	18,44	20,568
940	23,287	18,44	18,443
Mean value			20,903
Standard deviation			6,156
Coefficient of variation			29,4

Evaluation of 1st Test series:



Used function of correlation: Linear function with coefficient of correlation $r^2=0,721$

Calculated contact pressing force at a cutting length of 20 mm: 18,45 N

Result: 18,45N calculated needed cutting force for cutting length of 20mm under measurement uncertainty of $\pm 0,83N$.

(1) Determination of resistance to cutting by sharp objects to ISO 13997:1999-08

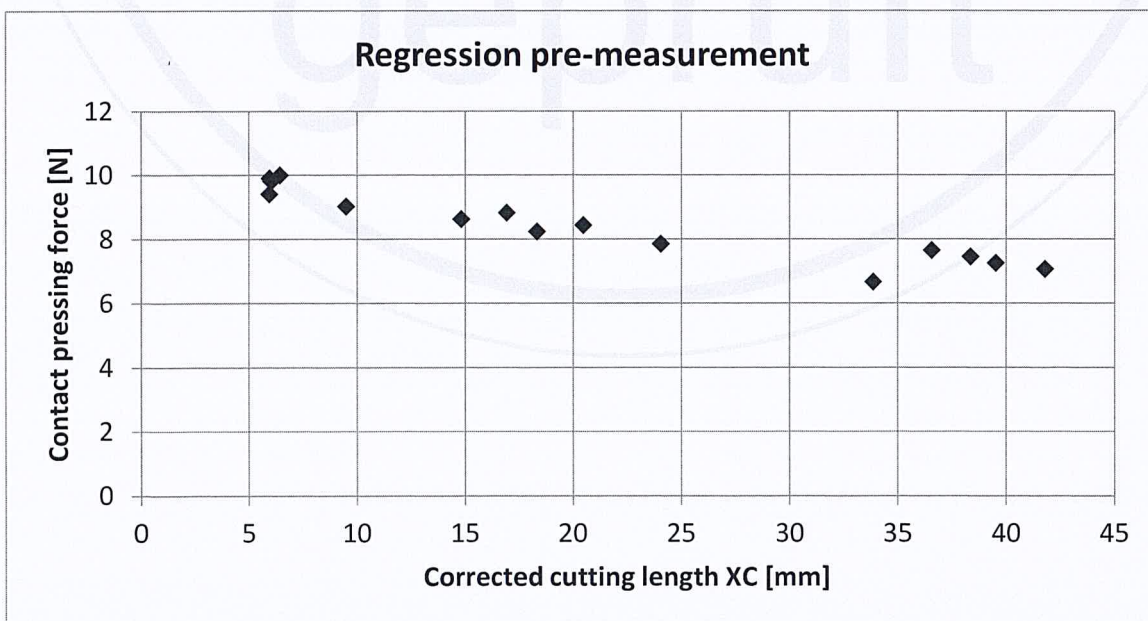
Blade sharpness correction factor: $C = 0,792$

Batch of blades: Box 106 (R-2056P, VVC)

Pre-Measurement

Sample 02 (Silica glass, 600 g/m ²)				
Cutting stroke length range	Weight on the pan [g]	Cutting length [mm]	Contact pressing force [N]	Corrected cutting length XC [mm]
5 mm – 15 mm	510	8,097	10,01	6,413
	505	7,497	9,91	5,938
	500	7,595	9,81	6,015
	480	7,485	9,42	5,928
	460	11,955	9,03	9,468
15 mm – 30 mm	450	21,357	8,83	16,915
	430	25,822	8,44	20,451
	440	18,680	8,63	14,795
	420	23,117	8,24	18,309
	400	30,335	7,85	24,025
30 mm – 50 mm	340	42,712	6,67	33,828
	370	49,867	7,26	39,495
	390	46,127	7,65	36,533
	380	48,395	7,46	38,329
	360	52,745	7,06	41,774

Evaluation Pre-Measurement:



Used function of correlation: Power function with coefficient of correlation $r^2=0,902$

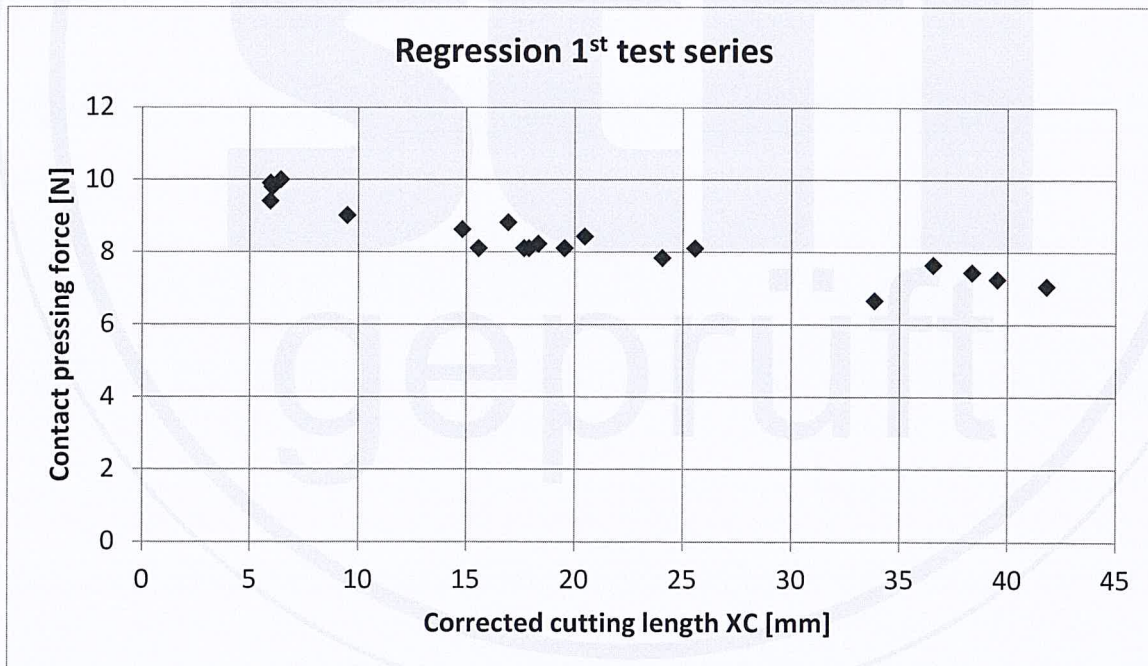
Calculated contact pressing force at a cutting length of 20 mm: 8,11 N

To used weight on the pan for a cutting length of 20 mm: 413 g

1st Test series

Sample 02 (Silica glass, 600 g/m ²)			
Weight on the pan [g]	Cutting length [mm]	Contact pressing force [N]	Corrected cutting length XC [mm]
413	24,642	8,11	19,516
413	19,640	8,11	15,555
413	22,562	8,11	17,869
413	32,242	8,11	25,536
413	22,285	8,11	17,650
Mean value			19,225
Standard deviation			3,798
Coefficient of variation			19,8

Evaluation of 1st Test series:



Used function of correlation: Power function with coefficient of correlation $r^2=0,887$

Calculated contact pressing force at a cutting length of 20 mm: 8,10 N

Result: 8,10N calculated needed cutting force for cutting length of 20mm under measurement uncertainty of $\pm 0,73N$.



Further information on the test procedures or results are available at the accredited testing laboratory and can be provided to the client upon request.

The test results refer to the delivered specimen. This test report should not be published in parts. The testing period is defined as timeframe between receipt of the sample and issue date of test report P2023 2496 from December 12th, 2023.

All materials received in connection with this order will be stored for a maximum period of six months unless agreed otherwise. Exempted from this practice are materials which will not be stored due to technical or safety-related reasons.

A handwritten signature in blue ink, appearing to read 'Marian Hierhammer'.

Dipl.-Eng. Mr. Marian Hierhammer
Head of Accredited Test Department



A handwritten signature in blue ink, appearing to read 'Mathias Kermer'.

Mr. Mathias Kermer
Accredited Test Laboratory

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