

Evidence of Performance

Classification of thermoplastic wood adhesives for non-structural applications



Test Report

no. 13-003918-PR01

(PB-K15-09-en-01)

Client **Kuban-Polymer LTD.**
1B, Naumenko st.
352700 Timashevsk city, Krasnodar reg
Russia

Product **Wood adhesive**

System designation **Terracol D 301**

Hardener -

Portion of hardener -

Special features **-/-**

Basis

EN 205 : 1991-05

Test methods for wood adhesives for non-structural applications; determination of tensile shear strength of lap joints

EN 204 : 2001-05

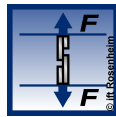
Classification of thermoplastic wood adhesives for non-structural applications.

Corresponds to the national standard DIN EN.

Instructions for use

The present test report serves to demonstrate the classification to load group D3

Classification according to EN 204



Load group D3

Load group	Storage sequence	Min. value acc. to EN 204 in N/mm ²	Mean value of the adhesive strength in N/mm ²
D3	1	≥ 10	12.4
D3	3	≥ 2	4.8
D3	4	≥ 8	10.5

Validity

The data and results given relate solely to the tested and described specimen.

Testing of adhesive strength does not allow any statement to be made on further characteristics of the tested adhesive regarding performance and quality.

Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of ift Test Documents" applies.

The cover sheet can be used as abstract.

ift Rosenheim

19.03.2014

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1 Object

1.1 Description of the test specimen

Building material	Wood adhesive
Manufacturer	Kuban-Polymer LTD.
Date of production	January 2014
Product designation	Terracol D 301
Number of components	1
Hardener	-
Portion of hardener	-

To evaluate the performance of the adhesive, test specimen were made to DIN EN 205 with a thin adhesive joint.

Type of wood	Beech, non-damped
Apparent density kg/m ³	700 ± 100
Moisture content in %	12 ± 1
Thickness of the joined parts in mm	5
Amount of adhesive in g/m ² /type	approx. 150, applied on both sides
Open assembly time in min	approx. 3
Closed assembly time in min	approx. 3
Duration of pressure in h at (20 ± 2) °C	approx. 2
Magnitude of pressure in N/mm ²	approx. 0.7

The description is based on inspecting of the test specimen at **ift**. Article designations/numbers as well as details of the material and gluing conditions were given by the client. (Additional data provided by the client are marked with *).

2 Procedure

2.1 Sampling

The adhesive was chosen by the client

Delivery	January 23rd, 2014
Registration number	36319

To evaluate the performance of the adhesive, test specimens were produced at **ift** according to DIN EN 205 : 1997-07 with a thin adhesive joint.

Number of test specimen per storage sequence 20 samples

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**2.2 Process**

Technical basics

EN 205 : 1991-05 Test methods for wood adhesives for non-structural applications; determination of tensile strength of lap joints

EN 204 : 2001-05 Classification of thermoplastic wood adhesives for non-structural application.

Corresponds to the national standards:

DIN EN 205 : 1991-10 Test methods for wood adhesives for non-structural applications; determination of tensile strength of lap joints

DIN EN 204 : 2001-09 Classification of thermoplastic wood adhesives for non-structural application

Boundary conditions Correspond to the demands of the standard

Load speed 50 mm/min

Deviation There were the following deviations from the test procedure or test conditions:

Evaluation of 20 samples instead of 10 samples for each of the storage sequences.

2.3 Test equipment

Press: Equipment number: 21447
 Material testing machine corresponds to DIN EN ISO 7500-1 : 1999-11

Equipment number: 22561

Hot water container Equipment number: 22447

Normal climate room: Equipment number: 22040

Measuring device for

Cut width: Equipment number: 22900

2.4 Testing

Test period March 17th, 2014

Testing personnel Stefan Hehn, Thomas Eder

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3 Detailed results

Table 1 Measured values and statistical evaluation to determine the load group D3 for the adhesive Terracol D 301

	Prüfung Nr.	D3 – 1	D3 – 3	D3 – 4
	Messdaten	N/mm ²	N/mm ²	N/mm ²
	1	10.53	5.28	9.93
	2	9.94	5.29	10.40
	3	10.91	5.01	9.53
	4	12.71	4.53	10.85
	5	12.47	4.99	10.56
	6	10.05	5.39	9.88
	7	10.03	4.92	10.27
	8	11.38	4.88	10.52
	9	12.52	4.63	11.35
	10	13.02	5.11	10.86
	11	14.45	4.87	9.90
	12	13.17	5.16	9.56
	13	14.02	4.49	9.88
	14	13.94	4.52	10.97
	15	13.81	4.85	10.75
	16	14.22	4.86	9.78
	17	13.10	4.95	10.85
	18	12.64	4.29	11.45
	19	12.83	4.41	10.94
	20	12.87	3.93	11.41
Number		20	20	20
Mean value		12.43 N/mm ²	4.81 N/mm ²	10.48 N/mm ²
Standard deviation		1.46 N/mm ²	0.37 N/mm ²	0.61 N/mm ²
Variation coefficient		12 %	8 %	6 %
Maximum		14.45 N/mm ²	5.39 N/mm ²	11.45 N/mm ²
Minimum		9.94 N/mm ²	3.93 N/mm ²	9.53 N/mm ²
Estimated wood rupture		100 %	0 %	100 %