

HUECK product pass for doors according to EN 14351-1 2014-D-04-R10

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Basis

EN 14 351 - 1 (2010 - 08)
 Windows and pedestrian doors

Test reports

ift 12-001576-PR16
 ift 12-001576-PR17
 ift 12-001576-PR19
 ift 14-000016-PR02
 ift 14-000639-PR02 PB Z27
 ift 14-000639-PR02 PB Z28
 ift 14-000639-PR02 PB Z31
 ift 14-000639-PR02 PB Z32
 PIV 45-15/14
 PIV 45-16/14
 PIV 45-21/13
 PIV 45-22/13

The Hueck product pass describes general properties of the given product family according to specifications given in the product standard.

The classifications apply to the described specimen shown in the tables and are valid for the defined application range.

For the applicability of classifications local building laws and contractual agreements apply.

Content

The Hueck product pass consists of 7 pages in total:

1. Abstract of properties according to EN 14 351 - 1
2. General information
3. Short description of the product family
4. General survey of properties of the different product families

Customer Hueck GmbH & Co. KG
 Loher Straße 9
 58511 Lüdenscheid

System **HUECK Lambda DS 090**

Product family One or two leaf door
 Inward and outward opening

Frame material Aluminum plastic compound

Properties / classifications

Resistance to wind load	Resistance to snow and permanent load	Safety in case of fire	Water tightness	Dangerous substances	Impact load	Load-bearing capacity of safety devices
up to C3 / B3	npd	npd	up to 7A	see chapter 4	npd	npd

Height and width	Aibility to release	Acoustic performance	Thermal performance	Radiation properties	Air permeability	Operating forces
1)	npd	up to 43 (-1; -2) dB	1)	1)	up to 4	npd

Further properties

Mechanical strength	Ventilation	Bullet resistance	Explosion resistance	Mechanical durability	Behaviour between different climates	Burglar resistance
npd	npd	npd	npd	npd	npd	up to RC 3

1) project certificate - if required

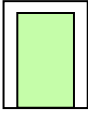
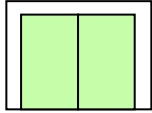
2) property not applicable for doors

Lüdenscheid, 01. December 2014

i.V. 

Günther Weiß

1. Abstract of properties according to EN 14351-1

No.	properties	Product family 1		Product family 2	
					
		Single leaf door		Double leaf door	
		Inwards opening	Outwards opening	Inwards opening	Outwards opening
4.2	Resistance to wind load	C3 / B3	npd	C2 / B2	C2 / B2
4.3	Resistance to snow and permanent load	not applicable – only for roof windows			
4.4	Safety in case of fire	not applicable – only for roof windows			
4.5	Watertightness	7A	npd	2A	2A
4.6	Dangerous substances	The manufacturer has to declare substances which when used as prescribed cause danger to hygiene, health or the environment by emission or migration in accordance with the local requirements.			
4.7	Impact resistance	npd	npd	npd	npd
4.8	Load-bearing capacity of safety devices	npd	npd		npd
4.9	Height and width	objektbezogen zu deklarieren			
4.10	Ability to release	npd	npd	npd	npd
4.11	Acoustic performance	up to 43 (-1; -2) dB	npd	npd	npd
4.12	Thermal performance	U _b value for standard size 1.23 m x 2.18 m or 2.00 m x 2.18 m or object-related has to be declares			
4.13	Radiation properties	total energy transmittance g and light transmittance τ are to be declared object-related based on CE marking of glass units			
4.14	Air permeability	4	npd	2	2
4.16	Operating forces	npd	npd	npd	npd
4.17	Mechanical strength	npd	npd	npd	npd
4.18	Ventilation	npd	npd	npd	npd
4.19	Bullet resistance	npd	npd	npd	npd
4.20	Explosion resistance	npd	npd	npd	npd
4.21	Mechanical durability	npd	npd	npd	npd
4.22	Behaviour between different climates	npd	npd	npd	npd
4.23	Burglar resistance	up tp RC 3	up tp RC 3	up tp RC 3	up tp RC 3

2. General information for Hueck system pass

The performance characteristics listed were tested and classified in accordance with the product standard EN 14351-1 test and classification standards by approved testing laboratories.

The product pass is based on test reports mentioned in section 4. The detailed description of the various test specimens are found in the test reports.

The transferral rules are taken from Annex E of the product standard EN 14351-1.

3. Product family

3.1 Short description of the systems one and two sash doors

This short description summarises the main features of the system series HUECK Lambda DS 090.

Frame material	Aluminium plastic compound
Profile depth	fixed frame 90 mm sash profile 90 mm
Frame connection	Sash profile mitred on top, connected with corner brackets, nailed and glued, bottom rail fixed with T- connectors Fixed frame mitred, connected with corner brackets, nailed and glued, threshold profile crewed with fixed frame
Rebate gasket	gasket profile Z 921 048, EPDM, black, supplier Hueck, on three sides - 1 mm distance to threshold profile shaped gasket piece Z 921 080 both top corners
Threshold cover	on three sides Z 921 050, EPDM, black, supplier Hueck
Sash cover	cover gasket Z 921 051, EPDM, black, supplier Hueck, shaped gasket pieces Z 921 094 for upper sash corners shaped gasket pieces Z 921 093 for upper fixed frame
Glazing	insulated glass or panels with a thickness of 23 - 62 mm
External glazing gasket	gasket profile Z 921 001, EPDM black, supplier Hueck, single piece surrounds recess, jointed at top and glued
Internal glazing gasket	gasket profile Z 914 264, EPDM black, supplier Hueck, single piece surrounds recess, jointed at top and glued or gasket profiles depend on thickness of the glazing with equivalent material properties and comparable geometries
Vapour pressure equalisation	two drills, \varnothing 6 mm at bottom side
Hardware	
Locks	Mortise locks or multi-point locking
Striking plate main lock	single striking plate U-forend for E-opener
Striking plate secondary lock	single striking plate U-forend
Hinges	two or three part supplementary door hinges barrel door hinges

The name of the door series *Lambda duo 90 door* has been changed to *HUECK Lambda DS 090*. As there are no changes in construction test reports for *Lambda duo 90 door* are still valid for *HUECK Lambda DS 090*.

4. Overview of performance characteristics

Chapter of Product standard EN 14351-1		Variety / Type / Execution	Proof	Value / Class	Application area
4.2	Resistance to wind load	Single sash, inward opening Clear opening 1262 mm x 2326 mm Sash 1300 mm x 2350 mm Fixed frame 1415 mm x 2416 mm Single sash, inward opening, sash profile on four sides Clear opening 1262 mm x 2326 mm Sash 1300 mm x 2350 mm Fixed frame 1412 mm x 2416 mm Double sash inward opening Clear opening 2543 mm x 2321 mm Sash 1300 mm x 2350 mm Fixed frame 2693 mm x 2416 mm Double sash outward opening Clear opening 2543 mm x 2321 mm Sash 1300 mm x 2350 mm Fixed frame 2693 mm x 2416 mm	ift 12-001576-PR19 ift 14-000016-PR02 ift 12-001576-PR17 ift 12-001576-PR16	C3 / B3 C3 / B3 C2 / B2 C2 / B2	Valid for doors with a frame height and width of equal to or less than the tested specimen
4.3	Resistance to snow and permanent load	N/A	N/A	npd	Only applies to skylight windows
4.4	Safety in case of fire	N/A	N/A	npd	Only applies to skylight windows
4.5	Water tightness	Single sash, inward opening Clear opening 1262 mm x 2326 mm Sash 1300 mm x 2350 mm Fixed frame 1415 mm x 2416 mm Single sash, inward opening, sash profile on four sides Clear opening 1262 mm x 2326 mm Sash 1300 mm x 2350 mm Fixed frame 1412 mm x 2416 mm Double sash inward opening Clear opening 2543 mm x 2321 mm Sash 1300 mm x 2350 mm Fixed frame 2693 mm x 2416 mm Double sash outward opening Clear opening 2543 mm x 2321 mm Sash 1300 mm x 2350 mm Fixed frame 2693 mm x 2416 mm	ift 12-001576-PR19 ift 12-001576-PR17 ift 12-001576-PR17 ift 12-001576-PR16	7A 5a 2A 2A	Valid for windows with an area less than or up to 50% greater than the tested specimen
4.6	Dangerous substances	The manufacturer has to declare substances which when used as prescribed cause danger to hygiene, health or the environment by emission or migration in accordance with the local requirements.			
4.7	Impact resistance			npd	
4.8	Load-bearing capacity of safety devices			npd	

Chapter of Product standard EN 14351-1		Variety / Type / Execution	Proof	Value / Class	Application area																																																																				
4.9	Width and height	Declaration of width and height in mm																																																																							
4.10	Ability to release				Only applies to exterior doors in escape and rescue routes																																																																				
4.11	Acoustic performance	Single sash door Fixed frame 990 mm x 2110 mm Retractable ground seal 10 / 16 / 9 laminated acoustic Retractable ground seal with shaped piece 10 / 16 / 9 laminated acoustic With threshold 10 / 16 / 9 laminated acoustic With threshold 10 / 16 / 9 laminated acoustic With different thresholds and glass types threshold 1: retractable ground seal threshold 2: modified retractable ground seal threshold 3: threshold profile with gasket <table border="1"> <thead> <tr> <th>R_{w,Glas} dB</th> <th>threshold 1</th> <th>threshold 2</th> <th>threshold 3</th> </tr> </thead> <tbody> <tr> <td>38</td> <td>35 (-1; -2)</td> <td>36 (-1; -2)</td> <td>37 (-1; -3)</td> </tr> <tr> <td>39</td> <td>36 (-1; -3)</td> <td>36 (-1; -2)</td> <td>38 (-1; -3)</td> </tr> <tr> <td>40</td> <td>36 (-1; -3)</td> <td>37 (-1; -2)</td> <td>39 (-1; -3)</td> </tr> <tr> <td>41</td> <td>37 (-1; -3)</td> <td>38 (-1; -2)</td> <td>40 (-1; -3)</td> </tr> <tr> <td>42</td> <td>37 (-1; -3)</td> <td>38 (-1; -2)</td> <td>41 (-1; -3)</td> </tr> <tr> <td>43</td> <td>37 (-1; -3)</td> <td>38 (-1; -2)</td> <td>41 (-1; -3)</td> </tr> <tr> <td>44</td> <td>37 (-1; -3)</td> <td>39 (-1; -2)</td> <td>41 (-1; -3)</td> </tr> <tr> <td>45</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-2; -5)</td> </tr> <tr> <td>46</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-2; -5)</td> </tr> <tr> <td>47</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-1; -4)</td> </tr> <tr> <td>48</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-1; -4)</td> </tr> <tr> <td>49</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-1; -4)</td> </tr> <tr> <td>50</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-1; -4)</td> </tr> <tr> <td>51</td> <td>38 (-2; -4)</td> <td>40 (-2; -4)</td> <td>42 (-1; -4)</td> </tr> <tr> <td>52</td> <td>38 (-1; -2)</td> <td>40 (-1; -2)</td> <td>43 (-1; -2)</td> </tr> <tr> <td>53</td> <td>38 (-1; -2)</td> <td>40 (-1; -2)</td> <td>43 (-1; -3)</td> </tr> </tbody> </table>	R _{w,Glas} dB	threshold 1	threshold 2	threshold 3	38	35 (-1; -2)	36 (-1; -2)	37 (-1; -3)	39	36 (-1; -3)	36 (-1; -2)	38 (-1; -3)	40	36 (-1; -3)	37 (-1; -2)	39 (-1; -3)	41	37 (-1; -3)	38 (-1; -2)	40 (-1; -3)	42	37 (-1; -3)	38 (-1; -2)	41 (-1; -3)	43	37 (-1; -3)	38 (-1; -2)	41 (-1; -3)	44	37 (-1; -3)	39 (-1; -2)	41 (-1; -3)	45	38 (-2; -4)	40 (-2; -4)	42 (-2; -5)	46	38 (-2; -4)	40 (-2; -4)	42 (-2; -5)	47	38 (-2; -4)	40 (-2; -4)	42 (-1; -4)	48	38 (-2; -4)	40 (-2; -4)	42 (-1; -4)	49	38 (-2; -4)	40 (-2; -4)	42 (-1; -4)	50	38 (-2; -4)	40 (-2; -4)	42 (-1; -4)	51	38 (-2; -4)	40 (-2; -4)	42 (-1; -4)	52	38 (-1; -2)	40 (-1; -2)	43 (-1; -2)	53	38 (-1; -2)	40 (-1; -2)	43 (-1; -3)	ift PB Z31 14-000639-PR02 ift PB Z32 14-000639-PR02 ift PB Z27 14-000639-PR02 ift PB Z28 14-000639-PR02 ift 14-002395-PR01 GAS-C01	R _w (C; C _{tr}) dB 38 (-2; -4) 40 (-2; -4) 42 (-2; -5) 43 (-1; -2) 43 (-1; -3)	Valid for other window sizes according to EN 14351-1, annex B, table B.3
R _{w,Glas} dB	threshold 1	threshold 2	threshold 3																																																																						
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41	37 (-1; -3)	38 (-1; -2)	40 (-1; -3)																																																																						
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4.12	Thermal performance			Project certificate	Calculation according to EN ISO 10077-1 for the reference size 1.23 m x 2.18 m elements can be used up to 3.6 m ² and for the reference size 2.00 m x 2.18 m can be transferred to elements greater 2.3 m ² .																																																																				
4.13	Radiation properties	Transferred from CE marking of glass units	N/A	project certificate	Applicable to all sizes																																																																				

Chapter of Product standard EN 14351-1		Variety / Type / Execution	Proof	Value / Class	Application area
4.14	Air permeability	Single sash, inward opening Clear opening 1262 mm x 2326 mm Sash 1300 mm x 2350 mm Fixed frame 1415 mm x 2416 mm	ift 12-001576-PR19	4	Valid for windows with an area less than or up to 50% greater than the tested specimen
		Single sash, inward opening, sash profile on four sides Clear opening 1262 mm x 2326 mm Sash 1300 mm x 2350 mm Fixed frame 1412 mm x 2416 mm	ift 12-001576-PR17	4	
		Double sash inward opening Clear opening 2543 mm x 2321 mm Sash 1300 mm x 2350 mm Fixed frame 2693 mm x 2416 mm	ift 12-001576-PR17	2	
		Double sash outward opening Clear opening 2543 mm x 2321 mm Sash 1300 mm x 2350 mm Fixed frame 2693 mm x 2416 mm	ift 12-001576-PR16	2	
4.16	Operating forces			npd	
4.17	Ventilation			npd	
4.18	Bullet resistance			npd	
4.19	Explosion resistance			npd	
4.20	Mechanical durability			npd	
4.21	Behaviour between different climates			npd	
4.22	Operating forces			npd	
4.23	Burglar resistance	Single and double sash door Size master sash 1300 mm x 2105 mm Size slave sash 970 mm x 2105 mm	PIV 45-22/13	RC 1 N	Transferrable to -20% / +10% of width and height with same or smaller distance between locking points
		Different profiles Sash width 700 mm – 1500 mm Sash height 1600 mm – 2400 mm Transparent and non transparent infills Different hinges	PIV 45-39/14.114	RC 1 N	
		Double sash door Size master sash 1300 mm x 2105 mm Size slave sash 970 mm x 2105 mm	PIV 45-21/13	RC 2 N	
		Double sash door with panic function Size master sash 1300 mm x 2105 mm Size slave sash 970 mm x 2105 mm	PIV 45-15/14	RC 2	
		Different profiles Sash width 700 mm – 1500 mm Sash height 1600 mm – 2400 mm Transparent and non transparent infills Different hinges	PIV 45-38/14.114	RC 2 RC 2 N	

Chapter of Product standard EN 14351-1		Variety / Type / Execution	Proof	Value / Class	Application area
4.23	Burglar resistance (cont.)	Single and double sash door Size master sash 1300 mm x 2104 mm Size slave sash 970 mm x 2104 mm Different profiles Sash width 700 mm – 1500 mm Sash height 1600 mm – 2400 mm Transparent and non transparent infills Different hinges	PIV 45-16/14 PIV 45-88/14.114	RC 3 RC 3	