

LEADUS VIG-Product Description

Product Name	Leadus-VIG	
Vacuum Layer Thickness	0.2mm	
Product Configuration	3TL+V+3T、4TL+V+4T 5TL+V+5T、6TL+V+6T	No.3-6: Glass Thickness T: Tempered L: Low-E V: Vacuum Layer
Tempering Degree	Fully Toughened	
Glass Substrates	1、Coated glass: All coated glass (single silver, double silver, triple silver) 2、Standard clear glass 3、Tinted glass 4、Various flat glass	
Ceramic Pillar	Color: White/Black Size:Normal/0.8mm Micro-dot/0.5mm	
Micro-dot Spacing	20mm	
Normal-Pillar Spacing	3mm+V+3mm	25mm
	4mm+V+4mm	30mm
	5mm+V+5mm	40mm
	6mm+V+6mm	40mm
Structure Specialty	No Evacuation Port	
Getter Shape	Needle	
Production Sizes	3TL+V+3T	min : 300mm×300mm max : 1000mm×2000mm
	4TL+V+4T	min : 300mm×300mm max : 1500mm×2500mm
	5TL+V+5T	min : 300mm×300mm max: 1900mm×2800mm
	6TL+V+6T	min : 300mm×300mm max : 1900mm×2800mm
Sample Configurations	3TL+V+3T	Low-E: single silver S1.16
	4TL+V+4T	Low-E: single silver S1.16/double silver D80
	5TL+V+5T	Low-E: single silver S1.16/double silver D80
	6TL+V+6T	Low-E: single silver S1.16/double silver D80
	S1.16: Jin Jing single silver Low-E D80: Jin Jing double silver Low-E	

PRODUCT ADVANTAGES

LEADUS

**0.3W/m²·k**

U-value

**> 40dB**

Sound Reduction

**15kg/m²**

Minimum Weight

**-70°C**

No Condensation

**> 90Mpa**

Minimum Strength

**> 25 Years**

Expected Lifespan

**6.2mm**

Minimum Thickness

**95%**

Emissivity Reduction

PRODUCT ADVANTAGES

LEADUS

**19.25 COG**

R-value

**> 40dB**

Sound Reduction

**3 lbs/sqft**

Minimum Weight

**-94°F/-70°C**

No Condensation

**> 10,000 PSI**

Minimum Strength

**> 50 Years**

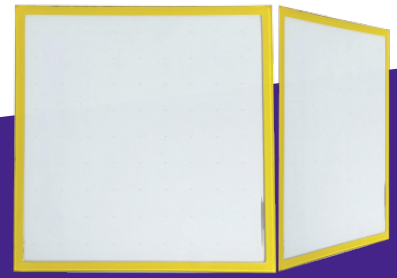
Expected Lifespan

**6.2mm**

Minimum Thickness

**95%**

Emissivity Reduction



1		2		3		4		5	
	0%		100%		100%		100%		100%
6		7		8		9		10	
	150%		150%		150%		150%		150%
11		12		13		14		15	
	150%		150%		150%		150%		100%
16		17		18		19		20	
	130%		100%		100%		130%		130%
21		22		23		24		25	
	100%		100%		150%		150%		

Quality Standard for Leadus Vacuum Glass

m	Requirements	
Sealing Joint	Sealing Edge Thickness	Sealing Edge Width:
	0.1 - 0.2 mm	Width: 9 mm $\pm$ 1 mm, with 1 - 2 mm of inner blank space.
Edge Processing	The edge processing should include edge grinding and chamfering, and there should be no cracks or other defects. Each piece of glass is allowed to have no more than one chipped edge per meter of side length, and the length of this chipped edge should not exceed 10mm. The extension of the chipped edge from the edge of the glass to the surface of the glass plate should not exceed 2mm, and the depth of extension from the plate surface to the thickness of the glass should not exceed 1.5mm.	
Allowable Deviation of Total Glass Thickness	Nominal Thickness D (mm)	Allowable Deviation
	D < 10	± 0.4
	10 $\leq$ D < 16	± 0.5
	Note: The nominal thickness of the vacuum glass is the sum of the nominal thickness of the original glass sheet and the thickness of the vacuum cavity.	
Diameter of Support Pillar	0.8 $\pm$ 0.2 mm	
Arrangement of Support Pillars	The supports should be arranged in an evenly spaced array, with spacing: 3 mm: 25 $\pm$ 2 mm, 4 mm: 30 $\pm$ 2 mm, 5, 6 mm: 40 $\pm$ 2 mm; No continuous absence is allowed, and the number of absent or extra support points is not allowed to exceed 3 per square meter.	
Vacuum Cavity	No Stains or Foreign Objects	
Inward Overflow of Solder	There are no more than 2 inward overflow points within a width of ≤ 5 mm from the sealing area along the inner edge	
Allowable Deviation of Side Length	Length (Width) L (mm)	Allowable Deviation (mm)
	L < 1000 mm	± 2 mm
	1000 mm $\leq$ L < 2000 mm	+2 mm, -3 mm
	L $\geq$ 2000	± 3 mm
Tempering Degree of Base Sheet	≥ 90 MPa	
Diagonal Difference	$\leq 0.3\%$ of the average length of the diagonal	
Camber Degree	For D ≥ 10 mm, the camber $\leq 0.3\%$, and for D < 10 mm, the camber $\leq 0.5\%$	
Stacking Difference	Length of the Longest Side L (mm)	Allowable Stacking Difference (mm)
	L < 1000	2
	1000 $\leq$ L < 2000	3
	L ≥ 2000	4
Surface of Glass	Scratches with a length ≤ 100 mm and a width ≤ 1 mm are allowed up	

	to 8 per square meter, among which there are at most 4 scratches with a length $\leq 100\text{mm}$ and a width between 1mm and 0.1mm (inclusive).	
Performance	Low-E + White Glass Vacuum Glass	White Glass + White Glass Vacuum Glass
	When measured with a -60°C dew point meter, the temperature drop within 10 minutes $\leq 2.5^{\circ}\text{C}$ is qualified; After being placed at $\geq 2.5^{\circ}\text{C}$ to 10°C for 3 days and retested, if the performance remains unchanged, it is qualified;	when measured with a -60°C dew point meter, the temperature drop within 10 minutes $\leq 15^{\circ}\text{C}$ is qualified;after being placed at $\geq 15 - 25^{\circ}\text{C}$ to 10°C for 3 days and retested, if the performance remains unchanged, it is qualified.

Test report no.: <i>Prüfbericht-Nr.:</i>	CN25TTIK 002	Order no.: <i>Auftrags-Nr.:</i>	326125853	Page 1 of 5 <i>Seite 1 von 5</i>
Client reference no.: <i>Kunden-Referenz-Nr.:</i>	2664194	Order date: <i>Auftragsdatum:</i>	19.08.2025	
Client: <i>Auftraggeber:</i>	HeBi Leadus Manufacturing Co.,Ltd. 1 Taihang Avenue East, Qiaomeng Township, Qi County Hebi City, 456750 Henan P.R. China			
Test item: <i>Prüfgegenstand:</i>	Vacuum Insulating Glass			
Identification / Type no.: <i>Bezeichnung / Typ-Nr.:</i>	4TLow-E+V+4T			
Order content: <i>Auftrags-Inhalt:</i>	Performance Test			
Test specification: <i>Prüfgrundlage:</i>	EN 673:2011 Calculated by WINDOW7 under environmental condition NFRC 100-2010 Thermal Transmittance (U value)			
Date of sample receipt: <i>Wareneingangsdatum:</i>	12.08.2025	N/A		
Test sample no: <i>Prüfmuster-Nr.:</i>	A004084158-001			
Testing period: <i>Prüfzeitraum:</i>	12.08.2025 - 20.08.2025			
Place of testing: <i>Ort der Prüfung:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Testing laboratory: <i>Prüflaboratorium:</i>	TÜV Rheinland (Shanghai) Co., Ltd.			
Test result*: <i>Prüfergebnis*:</i>	Siehe Sonstiges / See Other			
tested by: <i>geprüft von:</i>	Xingyu Chen	authorized by: <i>genehmigt von:</i>	John Tie	2025.09.08
Date: 08.09.2025 <i>Datum:</i>		Issue date: 08.09.2025 <i>Ausstellatum:</i>		15:57:39 +08'00'
Position / Stellung:	Project engineer	Position / Stellung:	Authorizer	
Other / Sonstiges: The test based on the client's requirement.				
Condition of the test item at delivery: <i>Zustand des Prüfgegenstandes bei Anlieferung:</i>		Test item complete and undamaged Prüfmuster vollständig und unbeschädigt		
* Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested * Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet				
This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark. <i>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</i>				

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Remarks
Anmerkungen

1	The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request. <i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i> <i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i>
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4	The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2023, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019. <i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2023, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i>

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Product description
Produktbeschreibung

1	Produktdetails <i>Product details</i>	Vacuum insulating glass Type: 4TLow-E+V+4T
2	Maße / Gewicht <i>Dimensions / Weight</i>	300mm*300mm*8,2mm
3	Bedienelemente <i>Operating elements</i>	N/A
4	Ausstattung / Zubehör <i>Equipment / Accessories</i>	N/A
5	Verwendete Materialien <i>Used materials</i>	N/A
6	Sonstiges <i>Other</i>	Test sample(s), as well sample information, description, product details and intended usage was provided by customer.
7	Prüfmusterbereitstellung: <i>Test sample obtaining:</i>	☒ Sending by customer ☐ Sampling by TÜV Rheinland Group ☐ others:

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Measuring results - Remarks / Messergebnisse – Bemerkungen

Test results after performing all applicable tests according to EN 673:2011:

Standard	EN 673:2011
Environmental condition	NFRC 100 - 2010

Test result:

Test Item	Result
Thermal transmittance(U value)	0.4 W/(m ² ·K)

Remark: 1. Main test equipment: S-47 Spectrum 100 F-IR Spectrometer.

--- End of Test Report / Ende des Prüfberichts ---

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Measuring results - Remarks / Messergebnisse – Bemerkungen

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ACKNOWLEDGEMENT OF CERTIFICATION

THIS IS TO ACKNOWLEDGE THAT AS OF THIS DATE

Hebi Leadus Special Glass Manufacturing Co., Ltd.

Hebi, Henan

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CERT #	GLASS	SPACER	FRAME CONST.	DESICCANT	SEALANT	GCI	IC
6075	U/C2	PHSS	BC4/GSLC	LF	PIB/S2	No	No
6076	U/C2	VG	VG	VG	VG	No	OI

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Thursday, February 5, 2026

February 1, 2026 - January 31, 2027

DATE OF ISSUE

CERTIFICATION PERIOD

17 Feb 2026
ADMINISTRATIVE MANAGER



safety glazing
certification council

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Tempered Transparent Glass

<u>SGCC#</u>	<u>IN</u>	<u>MM</u>	<u>Attributes</u>	<u>Type Code</u>	<u>Max Size</u>	<u>ANSI Class</u>	<u>Test Std</u>
9744	3/8	10	(MC)	VIGT	U	A	COMP

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Sunday, January 4, 2026
DATE OF ISSUE

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