Glazing Vision Glass Quality Assessment

Why we use The Hadamar Standard

GLAZINGVISION

INTRODUCTION

Glazing Vision places its customers at the heart of everything it does, therefore customer satisfaction is of utmost importance.
We want you to love your rooflight for its entire lifecycle, so we carry out multiple tests on every Glazing Vision rooflight to ensure that your end product is of the highest standard possible.

Testament to our dedicated hard work, we were the first glass rooflight manufacturer to be certificated by The British Board of Agreement (for our entire Flushglaze range) and our rooflights have also been awarded the UK Police flagship Secured by Design mark.

Additionally, Glazing Vision is a member of The Rooflight Association (formerly NARM) which means that as well as adhering to our own high quality standards, we have agreed to meet the code of practice set out by the association.

Before we begin building your rooflight, we undertake a Glass Quality inspection when the glass arrives from our carefully-vetted suppliers, our team undertakes many visual tests adhering to the Hadamar Standard as opposed to the GGF Standard that most other rooflight manufacturers adhere to.

WHAT IS THE HADAMAR STANDARD?

Hadamar releases the 'Guideline to Assess the Visual Quality of Glass in Buildings' technical manual which outlines the acceptable visual qualities of glass used in rooflights and windows. The technical guidelines released by Hadamar are evidently more stringent than those released by GGF, Hadamar allows fewer visual defects and requires inspection to take place at a closer distance.

Example of visual discrepancies permitted by Hadamar

Zone	Size and type (Ø in mm)	Pane size S (m^2)	
		S ≤ 1	1 < S
R	All	Without restrictions	
E	Spots Ø ≤ 1	Allowance of 3 in each area of Ø ≤ 20 cm	
	Spots 1 mm < Ø ≤ 3	4	1 per metre of perimeter
	Stains Ø ≤ 17	1	
	Spots Ø > 3 and stains Ø > 17	Not allowed	
M	Spots Ø ≤ 1	Allowance of 3 in each area of Ø ≤ 20 cm	
	Spots 1 < Ø ≤ 3	Not allowed	
	Spots Ø > 3 and stains Ø > 17	Not allowed	

WHY GLAZING VISION USES HADAMAR

Glazing Vision always operates to the highest possible standard and aims to exceed customer expectations, therefore we operate to Hadamar as opposed to GGF as it is more stringent and allows less defects in the glass.

The GGF Standard dictates that visual inspections are carried out from a distance of three meters, whereas Hadamar requires the distance to be only one meter, being two meters closer allows our well-trained team to identify any defects and not miss them from being too far away.

Due to the nature of the rooflights that we produce, we are required to adhere to much stricter standards as the sleek design of our products means that the perimeter edges are visible due to not having caps on the corners, unlike many of our competitors.
This is what makes us a cut above the rest, we have the customer in mind at every stage of the process.

WHAT IS THE GGF STANDARD?

The Glass & Glazing Federation (GGF) is a Trade Federation in the construction industry and has been operating since 1977 providing technical expertise, training, industry events, and more.
GGF releases technical manuals for its members on Glass in Buildings and Windows, Doors and Curtain Walling.
One of the manuals that GGF publishes is the 'Appearance and Visual Quality Specification for Insulating Glass Units' which is the standard that many of our competitors adhere to.
This means that glass supplied to our competitors could pass and be used, but we would reject it due to the higher standard we inspect to (Hadamar).

Example of visual discrepancies permitted by GGF

Zone	Dimensions and type (⌀ in mm)	Pane area S (m2)	
		S ≤ 1	1 < S
R	All	No limitation	
E	Spots ⌀ ≤ 1	No limitation	
	Spots 1mm ⌀ < 1 ≤ 3	4	1 per metre of perimeter
	Stain 1mm ⌀ ≤ 17	1	
	Spots ⌀ > 3 and stains ⌀ > 17	maximum 1	
M	Spots ⌀ ≤ 1	Maximum 3 in each area ⌀ ≤ 20cm	
	Spots 1 < ⌀ ≤ 3	Maximum 2 in each area of ⌀ ≤ 20 cm	
	Spot ⌀ > 3 and stain ⌀ > 17	Not accepted	

ALLOWABLE DEFECTS WITH GGF & HADAMAR

The visual inspection of the glass is required to be completed in natural daylight conditions (But not in direct sunlight) and the rooflights need to not have any visible moisture on the surface.
When comparing the two standards, it is evident that Hadamar is more strict in terms of the visible defects that it deems as a 'pass' which in turn, results in a rooflight of higher quality.

Firstly, GGF does not require testing to take place on the first 50 mm of glass, however, this is required to be tested by Hadamar, therefore any faults in that area are identified, if the faults in this area are mechanical faults, the glass is rejected, which may not happen under GGF as the area is disregarded.

The GGF Standard allows more sizable defects to be passed whereas the Hadamar Standard requires these defects to be much smaller. For example, a spot with a diameter of 2 millimeters (mm) is not allowed under Hadamar, whereas GGF allows up to 3 of these spots.
Similarly, for spots that are less than 1 mm in diameter, Hadamar allows three in each 20 cm diameter area whereas GGF enforces no limitation of how many there can be in a 20 cm diameter.

REJECTED GLASS EXAMPLE

When glass goes through our Quality Control, it is examined in numerous 'zones' and the allowable defects for these zones differ.
There are some defects that can not be passed, no matter how small they are.

An example of this is when there is a gap in the primary butyl seal. All units of glass are required to have a continuous primary butyl seal, however a gap of any size in the seal will result in the glass being rejected. This is because the gap means that the glass unit is no longer air tight and this could lead to loss of the argon gas in the cavity and in extreme circumstances condensation within the double glazed unit.

CONCLUSION

The consensus that 'glass is perfect' is untrue, no piece of glass will be completely perfect as visual discrepancies will always be present. However, Glazing Vision operating to The Hadamar Standard as opposed to the GGF Standard means that your Glazing Vision rooflight will be of higher quality and a considerable amount less visual imperfections, due to the Hadamar Standard allowing much less sizable scratches, spots and residues.

The quality control of our glass is much more rigorous than our competitors who use the GGF standard, therefore you can rest assured that your rooflight has been checked and held against the highest industry standard.

"No piece of glass is perfect but Glazing Vision demand glass quality that is over and above the industry standard in the UK and work tirelessly with our chosen glass suppliers to maintain that standard. Regular manufacturer visits give us extra insight and knowledge to inspect glass with confidence and our vertical glass inspection stands allow each piece to be individually inspected to our exacting criteria in diffuse daylight conditions.
There are no computers or cameras doing our inspections, just our well-trained, meticulous and dedicated staff" - Michelle Rolph, QSHE Manager

Explore our product range and the extensive tests that our rooflights undergo on our website: https://www.glazingvision.co.uk/