

# W20

FRAME SERIES



PERFORMANCE  
SPECIFICATIONS.



## > W20 Window - Fixed

Characteristic	Standards	Class	Assessment of Classification
<b>Air Permeability</b>	NF EN 1026 ( <i>Test</i> )	4	Airtight up to pressure of 600 Pa (12.5 psf)
	EN 12-207 ( <i>Classification</i> )		Airtight up to wind speed of 112 km/h (69.6 mph)
	NF EN 14351-1+A1		Joint Permeability → 0.75 m <sup>3</sup> /hm Overall Area Permeability → 3.0 m <sup>3</sup> /hm <sup>2</sup>
<b>Water Permeability</b> B → Shielded test	EN 1027 ( <i>Test</i> )	7B	Watertight up to pressure of 300 Pa (6.3 psf)
	EN 12-208 ( <i>Classification</i> )		Watertight up to wind speed of 79.7 km/h (49.5 mph)
<b>Wind Load Resistance (DP)</b>	EN 12211 ( <i>Test</i> )	A3	Frame deflection at 1200 Pa (25.1 psf) ≤ 1/150
	EN 12210 ( <i>Classification</i> )	C3	Frame deflection at 1200 Pa (25.1 psf) ≤ 1/300
<b>Acoustic Insulation Performance *</b> Rw → Weighted Sound Reduction Index	EN ISO 717-1:2007		Rw with Single Pane Glass → 24 - 28 dB
			Rw with Dual Pane (IGU) Glass → 28 - 32 dB
<b>Thermal Transmittance (U-value) **</b> Ug → Glass Thermal Transmittance Ut → Frame Thermal Transmittance	BS EN ISO 10077-1:2006		Ug = 1.0 W/m <sup>2</sup> K → Ut = 1.62 W/m <sup>2</sup> K
	BS EN ISO 10077-2:2012		Ug = 0.17 BTU/ft <sup>2</sup> h°F → Ut = 0.30 BTU/ft <sup>2</sup> h°F
<b>Visual Transmittance **</b>	ANSI/NFRC 100-2014		VT → 0.51 - 0.65
<b>Solar Heat Gain Coefficient **</b>	ANSI/NFRC 100-2014		SHGC → 0.24 - 0.38
<i>Test Unit Type: Fixed (no mullions) / Test Unit Size (area): 3.30 m<sup>2</sup> (34.98 ft<sup>2</sup>)</i>			<i>* Averaged Value      ** Dependent on Glass and Glazing Type</i>

## > W20 Window - Single OR Double Sash (Outswing Casements & Awning Windows)

Characteristic	Standards	Class	Assessment of Classification
<b>Air Permeability</b>	NF EN 1026 ( <i>Test</i> )	4	Airtight up to pressure of 600 Pa (12.5 psf)
	EN 12-207 ( <i>Classification</i> )		Airtight up to wind speed of 112 km/h (69.6 mph)
	NF EN 14351-1+A1		Joint Permeability → 0.75 m <sup>3</sup> /hm Overall Area Permeability → 3.0 m <sup>3</sup> /hm <sup>2</sup>
<b>Water Permeability</b> B → Shielded test	EN 1027 ( <i>Test</i> )	7B	Watertight up to pressure of 300 Pa (6.3 psf)
	EN 12-208 ( <i>Classification</i> )		Watertight up to wind speed of 79.7 km/h (49.5 mph)
<b>Wind Load Resistance (DP)</b>	EN 12211 ( <i>Test</i> )	A3	Frame deflection at 1200 Pa (25.1 psf) ≤ 1/150
	EN 12210 ( <i>Classification</i> )	C3	Frame deflection at 1200 Pa (25.1 psf) ≤ 1/300
<b>Acoustic Insulation Performance *</b> Rw → Weighted Sound Reduction Index	EN ISO 717-1:2007		Rw with Single Pane Glass → 24 - 28 dB
			Rw with Dual Pane (IGU) Glass → 28 - 32 dB
<b>Thermal Transmittance (U-value) **</b> Ug → Glass Thermal Transmittance Ut → Frame Thermal Transmittance	BS EN ISO 10077-1:2006		Ug = 1.0 W/m <sup>2</sup> K → Ut = 2.08 W/m <sup>2</sup> K
	BS EN ISO 10077-2:2012		Ug = 0.17 BTU/ft <sup>2</sup> h°F → Ut = 0.37 BTU/ft <sup>2</sup> h°F
<b>Visual Transmittance **</b>	ANSI/NFRC 100-2014		VT → 0.51 - 0.65
<b>Solar Heat Gain Coefficient **</b>	ANSI/NFRC 100-2014		SHGC → 0.24 - 0.38
<i>Test Unit Type: Single Casement / Test Unit Size (area): 3.30 m<sup>2</sup> (34.98 ft<sup>2</sup>)</i>			<i>* Averaged Value      ** Dependent on Glass and Glazing Type</i>

## &gt; W20 Window - Single OR Double Sash (Inswing Casements &amp; Hopper Windows)

Characteristic	Standards	Class	Assessment of Classification
<b>Air Permeability</b>	NF EN 1026 ( <i>Test</i> )	2	Airtight up to pressure of 300 Pa (6.27 psf)
	EN 12-207 ( <i>Classification</i> )		Airtight up to wind speed of 79.6 km/h (49.5 mph)
	NF EN 14351-1+A1		Joint Permeability → 6.75 m <sup>3</sup> /hm Overall Area Permeability → 27 m <sup>3</sup> /hm <sup>2</sup>
<b>Water Permeability</b> B → Shielded test	EN 1027 ( <i>Test</i> )	3B	Watertight up to pressure of 100 Pa (2.1 psf)
	EN 12-208 ( <i>Classification</i> )		Watertight up to wind speed of 46 km/h (28.6 mph)
<b>Wind Load Resistance (DP)</b>	EN 12211 ( <i>Test</i> )	A3	Frame deflection at 1200 Pa (25.1 psf) ≤ 1/150
	EN 12210 ( <i>Classification</i> )	C3	Frame deflection at 1200 Pa (25.1 psf) ≤ 1/300
<b>Acoustic Insulation Performance *</b> Rw → Weighted Sound Reduction Index	EN ISO 717-1:2007		Rw with Single Pane Glass → 24 - 28 dB
			Rw with Dual Pane (IGU) Glass → 28 - 32 dB
<b>Thermal Transmittance (U-value) **</b> Ug → Glass Thermal Transmittance Ut → Frame Thermal Transmittance	BS EN ISO 10077-1:2006		Ug = 1.0 W/m <sup>2</sup> K → Ut = 2.08 W/m <sup>2</sup> K
	BS EN ISO 10077-2:2012		Ug = 0.17 BTU/ft <sup>2</sup> h°F → Ut = 0.37 BTU/ft <sup>2</sup> h°F
<b>Visual Transmittance **</b>	ANSI/NFRC 100-2014		VT → 0.51 - 0.65
<b>Solar Heat Gain Coefficient **</b>	ANSI/NFRC 100-2014		SHGC → 0.24 - 0.38
<i>Test Unit Type: Single Casement / Test Unit Size (area): 3.30 m<sup>2</sup> (34.98 ft<sup>2</sup>)</i>		<i>* Averaged Value</i>	<i>** Dependent on Glass and Glazing Type</i>



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