

### Test Report No.: SHHL1708047473CE Date: SEP. 20, 2017 Page: 1 of 18

NINGBO GUANGHE SANITARY WARE CO., LTD. SANXING VILLAGE GULIN TOWN HAISHU DISTRICT NINGBO CHINA

The following sample(s) was/were submitted and identified by the client as:

Sample Description	: EASY RANGE EXTENSIBILITY	
Style/ Item No.	: EA-WI70-S-C; EA-WI70-S-F; EA-WI80-S-C; EA-WI80-S-F;	
	EA-WI90-S-C; EA-WI90-S-F; EA-WI100-S-C;	
	EA-WI100-S-F; EA-WI120-S-C; EA-WI120-S-F	
Manufacturer	: NINGBO GUANGHE SANITARY WARE CO., LTD.	
Supplier	: NINGBO GUANGHE SANITARY WARE CO., LTD.	
Sample Receiving Date	: AUG. 21, 2017	
Testing Period	: AUG. 21, 2017 TO SEP. 20, 2017	
Test Performed	: SELECTED TEST(S) AS REQUESTED BY APPLICANT	
Test Requested	: EN 14428:2015 SHOWER ENCLOSURES-FUNCTIONAL	
	REQUIREMENTS AND TEST METHODS	
Test Result(s)	: FOR FURTHER DETAILS, PLEASE REFER TO THE	
	FOLLOWING PAGE(S)	
Conclusion	: THE SUBMITTED SAMPLE MET THE TEST	
	REQUIREMENT.	

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Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Yomoro Gu Authorized Signatory



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General product information

Manufactured from NINGBO GUANGHE SANITARY WARE CO., LTD THE SAMPLE SUBMITTED WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 1200 X 1950MM. GLASS: 6MM PRINTED SERIGRAPHY TEMPERED GLASS.

Style No.: EA-WI120-S-F







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 700 X 1950MM. GLASS: 6MM CLEAR TEMPERED GLASS. Style No.: EA-WI70-S-C







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 700 X 1950MM. GLASS: 6MM PRINTED SERIGRAPHY TEMPERED GLASS. Style No.: EA-WI70-S-F







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 800 X 1950MM. GLASS: 6MM CLEAR TEMPERED GLASS. Style No.: EA-WI80-S-C







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 800 X 1950MM. GLASS: 6MM PRINTED SERIGRAPHY TEMPERED GLASS. Style No.: EA-WI80-S-F







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 900 X 1950MM. GLASS: 6MM CLEAR TEMPERED GLASS. Style No.: EA-WI90-S-C







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 900 X 1950MM. GLASS: 6MM PRINTED SERIGRAPHY TEMPERED GLASS. Style No.: EA-WI90-S-F







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 1000 X 1950MM. GLASS: 6MM CLEAR TEMPERED GLASS. Style No.: EA-WI100-S-C







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 1000 X 1950MM. GLASS: 6MM PRINTED SERIGRAPHY TEMPERED GLASS. Style No.: EA-WI100-S-F







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THE SAMPLE WAS A WALK-IN. PROFILE: CHROMED ALUMINUM IN SILVER. OVERALL DIMENSION: 1200 X 1950MM. GLASS: 6MM CLEAR TEMPERED GLASS. Style No.: EA-WI120-S-C



#### Summary of testing:

The submitted sample was tested and found to comply with applicable requirements of EN 14428:2015.





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#### **Test Conducted:**

#### 1. EN 14428:2015 Shower enclosures-Functional requirements and test methods

Sample No.	Style No.	Overall dimension (mm)	Sample Size
Test sample	EA-WI120-S-F	1200X1950	1 piece
	EA-WI70-S-C	700X1950	/
Referenced sample	EA-WI70-S-F	700X1950	/
	EA-WI80-S-C	800X1950	/
	EA-WI80-S-F	800X1950	/
	EA-WI90-S-C	900X1950	/
	EA-WI90-S-F	900X1950	/
	EA-WI100-S-C	1000X1950	/
	EA-WI100-S-F	1000X1950	/
	EA-WI120-S-C	1200X1950	/

Clause	Test Method/ Requirement	Test Result	Rating
4.1 General	<ul> <li>The manufacturer shall provide with each shower enclosure detailed instructions and use to include at least the following information:</li> <li>Description of installation with special consideration of building construction and necessary tools and sealant;</li> <li>Instructions for appropriate maintenance and care, including guidance on cleaning.</li> </ul>	The instruction was provided by client	Pass
4.2 Cleanability	When tested visually, the surfaces of the components of the shower enclosures which are accessible during use and cleaning shall be free from sharp corners, edges and burrs. When using recommended cleaning agents in accordance with the manufacture's installation and care instructions, there shall be no reduction in safety or function of the shower enclosure.	/	Pass
4.3 Impact resistance/shatter properties			
4.3.1 General	Shower enclosures may be glazed with various materials. Where glass is used, this shall meet the requirements of 4.3.2 or 4.3.3 and where plastics materials are used, they shall meet the requirements of 4.3.4.	Thermally toughened safety glass	Pass
4.3.2 Thermally toughened safety glass			
4.3.2.1 Thermally toughened flat safety glass	Thermally toughened safety glass shall meet the requirements of prEN 12150-1:2013.	EN 12150-1:2015 test report was provided See Remark 1	Pass





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Clause	Test Method/ Requirement	Test Result	Rating
4.3.2.2	Test in accordance with 5.1 to ensure that under these test	Not curved safety	N/A
Thermally	conditions the glass has a particle count of 40 or greater	glass	
toughened	and the length of the longest particle shall not exceed 100		
curved safety	mm.		
glass			
4.3.3 Laminated	Laminated safety glass shall conform to EN 14449 and EN	Not laminated	N/A
satety glass	ISO 12543-2. Laminated safety glass shall not have holes,	satety glass	
	for example for fixings, hinges, handles or any other fittings.		
	NOTE Laminated safety glass is susceptible to water penetration		
434 Plastics	When tested in accordance with 5.2 sheets shall not break	Not plastics	Ν/Δ
materials	or they shall break safely	materials	IN/73
4 4 Durability	of they shall bleak salely.	materials	
4.4 Durability	Products conforming to the requirements of 4.2 and 4.2 and	1	Page
4.4.1 General	the following are deemed to be durable.	1	F 855
4.4.2 Corrosion	All components shall consist of corrosion -proof materials	1	Pass
resistance	or shall be corrosion-protected.		
	All corrosion protection shall conform to the relevant		
	requirements specified in European and International		
	Standards.		
	Minimum requirements as below(if clients have no special		
	requirements ) :		
	- the minimum paint adhesion performance for powder-		
	coaled or wel-painted surfaces has a cross-cut value $\leq 2$		
	when tested in accordance with EN ISO 2409;		
	- the minimum average thickness of coating on autiminum		
	mothods given in EN ISO 7500. In no cases is minimum		
	local thickness less than 80 % of the minimum average		
	thickness		
	- Compliance with the neutral salt spray (NSS) test e.g. as		
	specified in EN ISO 9227 corrosion test in artificial		
	atmospheres - salt sprav tests with a minimum exposure		
	time of 200 h: The defect surface area A is less than or		
	equal to 0,1 % (A $\leq$ 0,1 %). The defects do not exceed a		
	dimension of 0,3 mm.		
4.4.3	When tested in accordance with 5.3 the glazing materials	No permanent	Pass
Resistance to	shall not show permanent staining or deterioration.	staining or	
chemicals and		deterioration	
Stains			
4.4.4	When tested in accordance with 5.4, the glazing materials	No cracks,	Pass
Resistance to	shall not show any cracks, crazing or discoloration.	crazing or	
wet and cry	Uncoated and unpainted thermally toughened safety glass	discoloration	
cycling	is deemed to be resistant to wet and dry cycling		
	and need not be tested.		



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Clause	Test Method/ Requirement	Test Result	Rating
4.4.5	When tested in accordance with 5.5, shower enclosures	/	N/A
Endurance	shall not show any functional deterioration after		
	20 000 closing-opening cycles.		
4.4.6 Stability	When tested in accordance with 5.6, shower enclosures	No functional	Pass
	shall withstand an energy representing the impact of a	deterioration	
	human body on a large impact area (e.g. blow from		
	shoulder, fall) without any functional deterioration which	See Remark 2	
	could result in injury to the user.		
4.4.7 Water	When tested in accordance with 5.7, shower enclosures	No leakage	Pass
retention	shall retain water. A few small drops of water on the outside		
	of the water retaining area are acceptable. Where shower		
	enclosures are intended for installation in wet room		
	environments (where watertightness is not required), water		
	may temporarily pass outside the water retaining area as		
	long as it is drained to the water retaining area.		
4.5 Dangerous	National regulations on dangerous substances may require	/	N/A
substances	verification and declaration on release, and sometimes		
	content, when construction products covered by this		
	standard are placed on those markets.		
	In the absence of European harmonized test methods,		
	verification and declaration on release/content should be		
	done taking into account national provisions in the place of		
	use.		



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Clause		Test Method/ Requirement	Test Result	Rating
6 Marking				
	The intend accordanc Shower en which inclu The releva including th	ded use of a shower enclosure is personal hygiene in e with the scope of this standard. closures can be described with a designation code ides all the fulfilled essential requirements. nt Essential Characteristics for shower enclosures heir abbreviations are given in Table 3. Table 3 – Characteristics and abbreviations	CE label was provided	Pass
	Abbreviation	Characteristics		
	EN 14428	Number of European Standard for shower enclosures for product description		
	CA	Cleanability		
	IR	Impact resistance/shatter properties		
	DA			
	the followin Number of s	ng system:		
	CA — IR — DA			
	Cleanability Impact resist	ance/shatter properties		
	Durabilitv –			
	The secor when thos characteri characteri	nd line of the designation code can be omitted be characteristics are fulfilled. However, the stics should be listed when one of those stics is not declared.		

#### Remark:

1. The test report SHIN160802836CCM for 6mm transparent tempered glass, issued by SGS lab on

Aug.16, 2016 was provided for thermally toughened safety glass test review.

2. According to the installation manual, there are two possible installation methods: single panel

installation method and double panel combination T-shape installation method. Laboratory

conducted the stability test on both installation methods.

3. N/A= Not applicable.





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