

Telescoping "Slider" Deck Sections for
Contouring Against Irregular Shapes



Civilian & Military Aircraft Decking

A SURE STEP EVERY STEP OF THE WAY!

- Economical
- Heavy Duty
- Maximum Safety



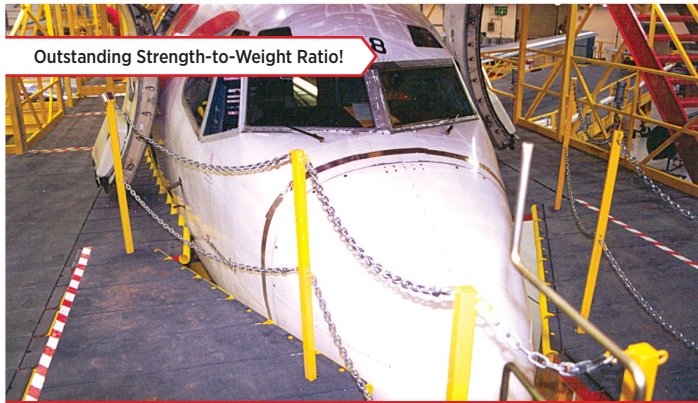
Made in the USA

A, B, C & D Aircraft Maintenance Checks!

Decades of Quality, Reliability, and Innovation!

www.agsecorp.com | +1.562.906.9300 | aerodeck@agsecorp.com

Strong & Long Lasting with Optional Skid-Resistant Surface!



Outstanding Strength-to-Weight Ratio!

Nose Dock Mates to Aircraft & Fuselage



Dimpled or Smooth Decking!

Lap Joint Access Docks & Tail Stand



Adaptable Fabricating & Welding Methods!

Lap Joint Modification



Minimum Open Area to Prevent Fall-Through of Tools

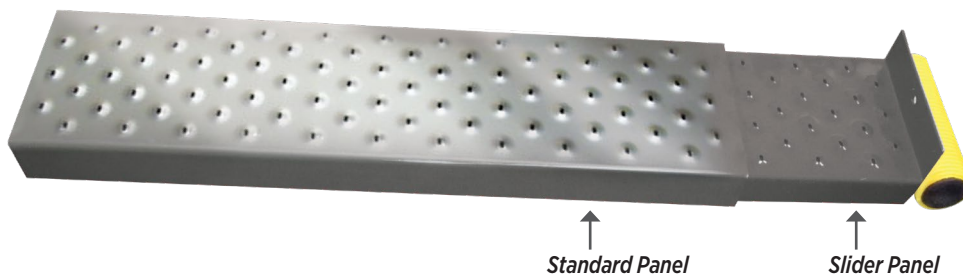
Cabin Entry



Conforms to Applicable Building Code & OSHA Standards!

Total System with Lockheed C-130 Hercules Aircraft

Part Number Configurations



STANDARD DECK PANELS

AGSE - A10S - 70.5 - G

BASIC PART NUMBER PREFIX _____

STYLE: _____

10, 20, 30, 40, 50, or 60

MATERIAL: _____

S (A569 steel) or

A (5052-H32 aluminum)

LENGTH: _____

Overall length in inches

(Max. length is 144" without special order, tolerance: $\pm 1/8"$)

OPTIONAL FINISH: _____

A (Type III anodized, clear—aluminum only) or

G (Hot-dipped galvanized—steel only)

Leave blank for standard mill finish

SLIDER DECK PANELS

AGSE - A70S - 48.5 - 24 - G - B - S

BASIC PART NUMBER PREFIX _____

STYLE: _____

70 (Dimpled) or 80 (Smooth)

MATERIAL: _____

S (A569 steel) or

A (5052-H32 aluminum)

EXTENDED LENGTH: _____

Extended length in inches

(See figure below, tolerance: $\pm 1/8"$)

ENGAGEMENT LENGTH: _____

Extended length in inches

(See figure below, tolerance: $\pm 1/8"$)

OPTIONAL FINISH: _____

A (Type III anodized, clear—aluminum only) or

G (Hot-dipped galvanized—steel only)

Leave blank for standard mill finish

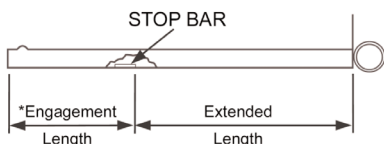
TOE PLATE OPTION: _____

B (Bent type) or

Leave blank for standard straight-toe plate

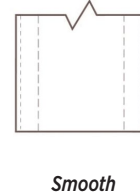
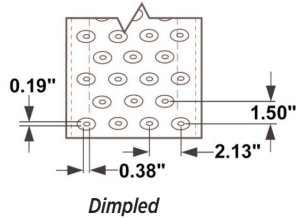
SLIDER OPTION: _____

S (Slotted slider used with hinged slider locks)



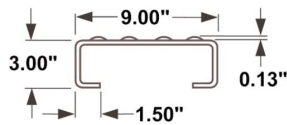
*Ensure the engagement length is large enough to provide a 24" minimum overlap dimension to the structure. If the part number omits the engagement length, the provided slider will be a standard 24" engagement length.

Dimensions, Material & Weight



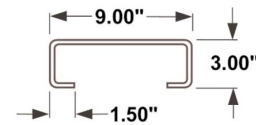
STANDARD DECK PANELS

STYLE #10 DIMPLED



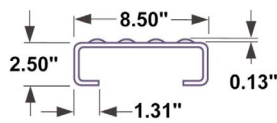
PART NUMBER	MATERIAL	WEIGHT
AGSE-A10S-XXX	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	6.27 Lbs./Ft.
AGSE-A10A-XXX	5052-H32 Aluminum 0.125" Thk.	2.48 Lbs./Ft.

STYLE #20 SMOOTH



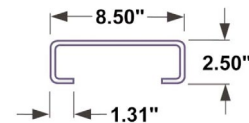
PART NUMBER	MATERIAL	WEIGHT
AGSE-A20S-XXX	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	6.32 Lbs./Ft.
AGSE-A20A-XXX	5052-H32 Aluminum 0.125" Thk.	2.50 Lbs./Ft.

STYLE #30 DIMPLED



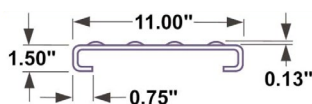
PART NUMBER	MATERIAL	WEIGHT
AGSE-A30S-XXX	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	5.58 Lbs./Ft.
AGSE-A30A-XXX	5052-H32 Aluminum 0.125" Thk.	2.21 Lbs./Ft.

STYLE #40 SMOOTH



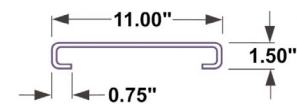
PART NUMBER	MATERIAL	WEIGHT
AGSE-A40S-XXX	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	5.63 Lbs./Ft.
AGSE-A40A-XXX	5052-H32 Aluminum 0.125" Thk.	2.23 Lbs./Ft.

STYLE #50 DIMPLED



PART NUMBER	MATERIAL	WEIGHT
AGSE-A50S-XXX	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	5.34 Lbs./Ft.
AGSE-A50A-XXX	5052-H32 Aluminum 0.125" Thk.	2.11 Lbs./Ft.

STYLE #60 SMOOTH



PART NUMBER	MATERIAL	WEIGHT
AGSE-A60S-XXX	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	5.41 Lbs./Ft.
AGSE-A60A-XXX	5052-H32 Aluminum 0.125" Thk.	2.14 Lbs./Ft.

SLIDER DECK PANELS

STYLE #70 DIMPLED*

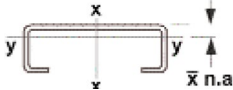
PART NUMBER	MATERIAL	WEIGHT
AGSE-A70S-XX-24	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	5.58 Lbs./Ft.
AGSE-A70A-XX-24	5052-H32 Aluminum 0.125" Thk.	2.21 Lbs./Ft.

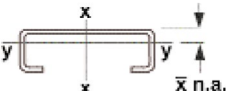
STYLE #80 SMOOTH*

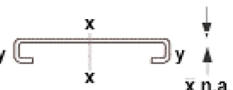
PART NUMBER	MATERIAL	WEIGHT
AGSE-A80S-XX-24	ASTM A569 Steel (12 Ga.) 0.1046" Thk.	5.63 Lbs./Ft.
AGSE-A80A-XX-24	5052-H32 Aluminum 0.125" Thk.	2.23 Lbs./Ft.

*Contains same dimensions, cross-section, and choice of steel or aluminum material as Styles #30 & #40 Standard Deck Panels.

Allowable Loads, Deflections, & Properties for Standard Deck Panels

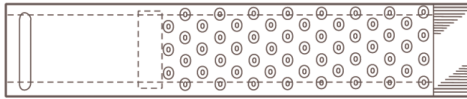
STYLE #10 DIMPLED & STYLE #20 SMOOTH				SECTION PROPERTIES							
				Property	Steel	Aluminum					
				ly (in ⁴)	2.49	2.91					
				Min Sy (in ³)	1.246	1.451					
				\bar{x} n.a. (in)	0.998	0.998					
				Ix (in ⁴)	21.8	25.7					
Sx (in ³)	4.85	5.70									
ALLOWABLE LOADS AND DEFLECTIONS				SIMPLE SUPPORTED SPAN							
		3 Ft.	4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	9 Ft.	10 Ft.	11 Ft.	12 Ft.
10S & 20S Steel	Max. Allow Uniform Load (Lbs./Ft.)	1200	900	664	461	339	259	205	161	121	93
	Max. Deflection- Uniform Load (IN.)	0.030	0.072	0.129	0.186	0.253	0.331	0.419	0.500	0.550	.0600
	Max. Allow Mid-Span Concentric Load (Lbs.)	1800	1800	1661	1384	1186	1038	923	830	755	692
	Max. Deflection- Concentric Load (IN.)	0.024	0.057	0.103	0.149	0.203	0.265	0.335	0.413	0.500	0.595
10A & 20A Aluminum	Max. Allow Uniform Load (Lbs./Ft.)	1000	726	464	308	194	130	91	67	50	38
	Max. Deflection- Uniform Load (IN.)	0.061	0.140	0.218	0.300	0.350	0.400	0.450	0.500	0.550	0.600
	Max. Allow Mid-Span Concentric Load (Lbs.)	1500	1451	1161	968	829	650	513	416	344	289
	Max. Deflection- Concentric Load (IN.)	0.049	0.112	0.175	0.251	0.342	0.400	0.450	0.500	0.550	0.600

STYLE #30 & #70 DIMPLED & STYLE #20 & #80 SMOOTH				SECTION PROPERTIES							
				Property	Steel	Aluminum					
				ly (in ⁴)	1.502	1.742					
				Min Sy (in ³)	0.880	1.021					
				\bar{x} n.a. (in)	0.794	.794					
				Ix (in ⁴)	16.88	19.83					
Sx (in ³)	3.97	4.67									
ALLOWABLE LOADS AND DEFLECTIONS				SIMPLE SUPPORTED SPAN							
		3 Ft.	4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	9 Ft.	10 Ft.	11 Ft.	12 Ft.
30S & 40S Steel	Max. Allow Uniform Load (Lbs./Ft.)	933	700	470	326	240	183	133	97	73	56
	Max. Deflection- Uniform Load (IN.)	0.039	0.093	0.152	0.218	0.297	0.388	0.450	0.500	0.550	0.600
	Max. Allow Mid-Span Concentric Load (Lbs.)	1400	1400	1174	978	838	734	652	587	500	420
	Max. Deflection- Concentric Load (IN.)	0.031	0.074	0.121	0.175	0.238	0.311	0.393	0.485	0.550	0.600
30A & 40A Aluminum	Max. Allow Uniform Load (Lbs./Ft.)	733	511	319	185	116	78	55	40	30	
	Max. Deflection- Uniform Load (IN.)	0.079	0.164	0.250	0.300	0.350	0.400	0.450	0.500	0.550	
	Max. Allow Mid-Span Concentric Load (Lbs.)	1160	1021	817	681	509	389	308	249	206	
	Max. Deflection- Concentric Load (IN.)	0.063	0.131	0.205	0.295	0.350	0.400	0.450	0.500	0.550	

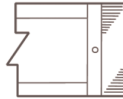
STYLE #50 DIMPLED & STYLE #60 SMOOTH				SECTION PROPERTIES							
				Property	Steel	Aluminum					
				ly (in ⁴)	0.350	0.397					
				Min Sy (in ³)	0.292	.0332					
				\bar{x} n.a. (in)	0.303	0.305					
				Ix (in ⁴)	22.9	26.8					
Sx (in ³)	4.16	4.88									
ALLOWABLE LOADS AND DEFLECTIONS				SIMPLE SUPPORTED SPAN							
		3 Ft.	4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	9 Ft.	10 Ft.	11 Ft.	12 Ft.
50S & 60S Steel	Max. Allow Uniform Load (Lbs./Ft.)	433	244	156	104	66	44				
	Max. Deflection- Uniform Load (IN.)	0.078	0.138	0.126	0.300	0.350	0.400				
	Max. Allow Mid-Span Concentric Load (Lbs.)	649	487	390	325	278	220				
	Max. Deflection- Concentric Load (IN.)	0.062	0.111	0.173	0.249	0.339	0.400				
50A & 60A Aluminum	Max. Allow Uniform Load (Lbs./Ft.)	295	142	73							
	Max. Deflection- Uniform Load (IN.)	0.132	0.200	0.250							
	Max. Allow Mid-Span Concentric Load (Lbs.)	443	332	227							
	Max. Deflection- Concentric Load (IN.)	0.105	0.187	0.250							

Calculated maximum load values use a safety factor of 2.5 based on ultimate tensile strengths of 50,000 psi for A569 steel and 30,000 psi for 5052-H32 aluminum. Loads shown with screened backgrounds have been limited to a (1/240) x span maximum deflection for walking comfort and safety. The span is too great to support a 200 Lb. concentrated load at maximum deflection if no value is displayed.

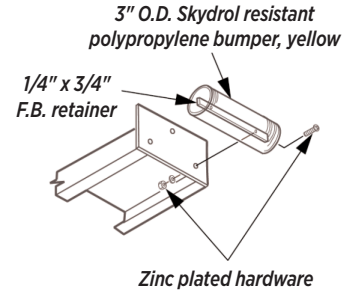
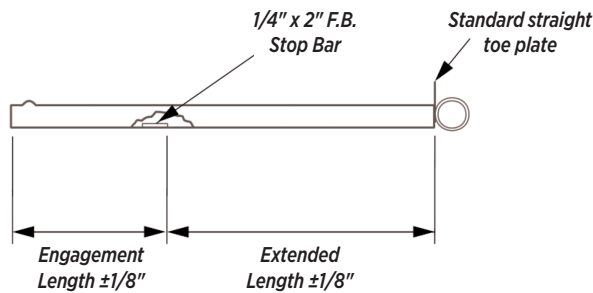
Slider Deck Construction



Style #70* sliders are dimpled over the extended length of the panel only



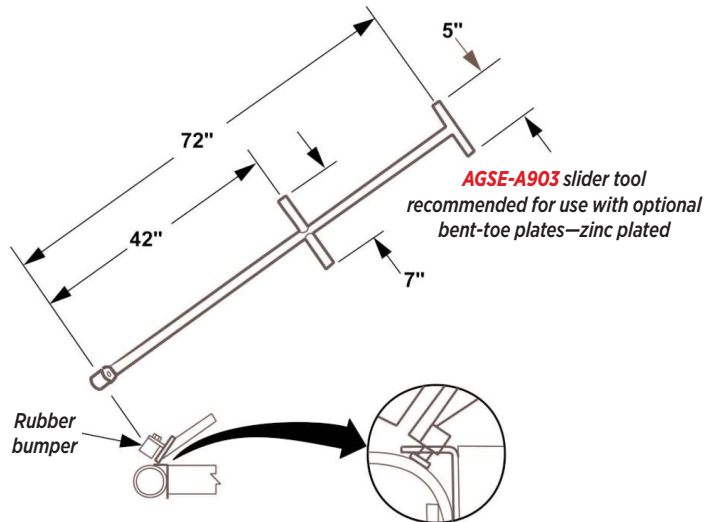
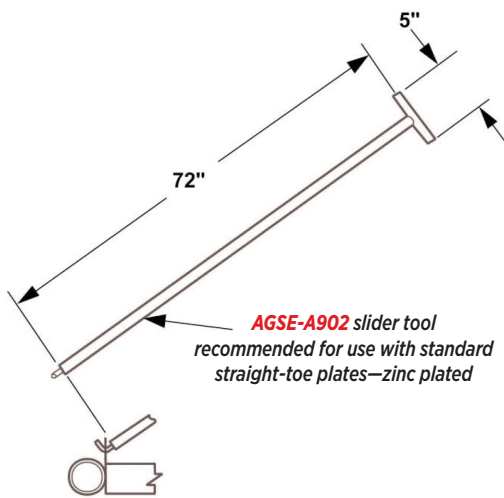
Style #80* sliders are smooth over the extended length of the panel only



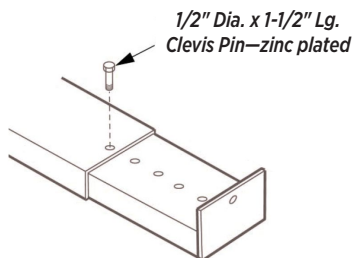
Optional bent-toe plate for use at doors where sliders meet together or where foot traffic will pass over

*Contains same cross-section and choice of steel or aluminum material as Styles #30 & #40 Standard Deck Panels.

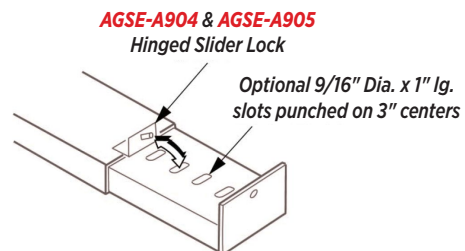
SLIDER OPERATION TOOLS



SLIDER LOCKS



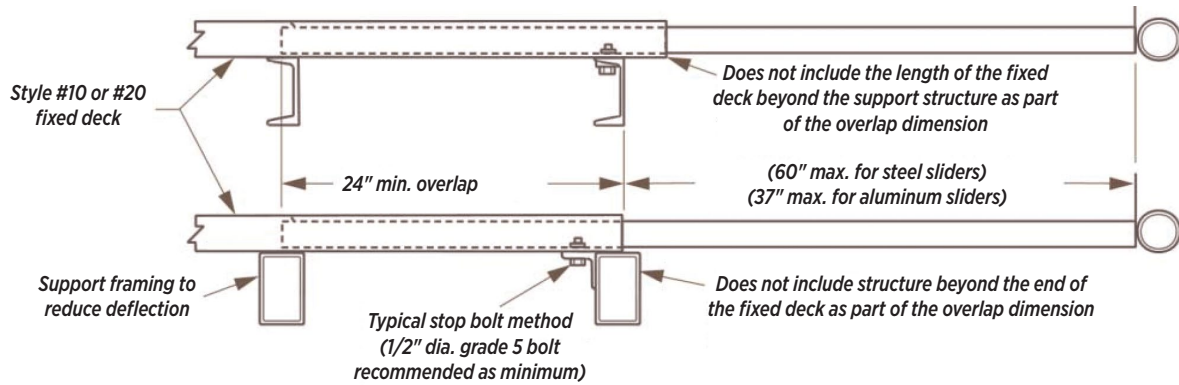
A clevis pin lock inserts into drilled holes to provide locking after positioning the slider panel.



AGSE-A904 Hinged Pin Lock prevents extension and retraction of the slider panel. The hinge rotates back to unlock the slider.

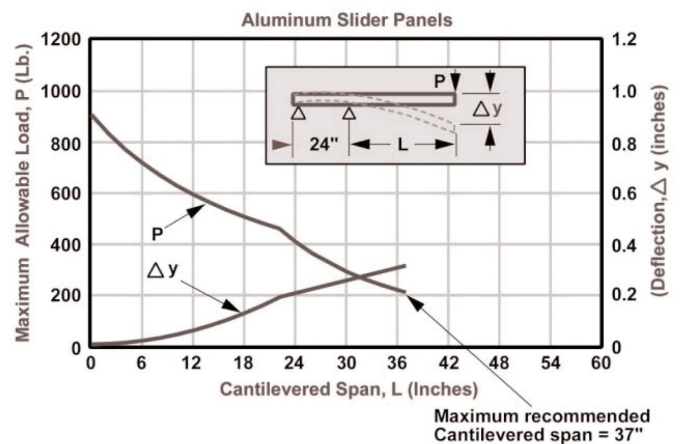
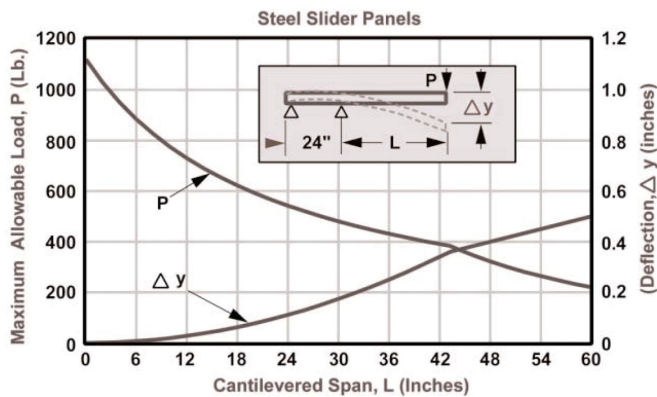
AGSE-A905 Hinged Pin Lock prevents retraction of the slider panel but does not restrict its extension, requiring the slider panel to extend against an anchored object.

Allowable Loads & Deflections for Slider Deck Panels



ALLOWABLE LOADS & DEFLECTION CURVES

Load and deflection curves are based on the minimum overlap of the slider to support a structure of 24". Deflections are for the slider panel alone, and the actual total deflection will increase due to deflections of the support structure and fixed deck pocket. Additional support framing should be placed below the fixed deck to minimize deflection.



Calculated load values of maximum allowable load curves used a safety factor of 2.5 based on ultimate tensile strengths of 50,000 psi for A569 steel and 30,000 psi for 5052-H32 aluminum. Loads are limited to a 2.5 safety factor against the buckling of slider walls and to $(1/120) \times \text{span}$ maximum deflection for walking comfort and safety. Span is limited to meet the minimum load rating of 200 pounds.

Additional Safety Information

The loads and deflections tabulated in this brochure are the minimum recommended allowable limits. The permissible loads and deflectors can reduce proportionally to achieve safety factors greater than 2.5 based on ultimate tensile strength.

The load and deflection values derive from the complete section properties of the deck panels. The customer is responsible for determining the reduction in load capacity or reinforcement of areas where deck panels are trimmed or otherwise modified.

Slider panels rely on friction forces to hold them without a locking mechanism. The slider can dangerously slip when exceeding these forces. Shorter sliders with less cantilevered load will slide more easily when reduced prying forces are applied. Oils or other liquids that come into contact with sliding surfaces will limit sliding friction, thus increasing the risk of an accident. Using a locking mechanism to prevent sliders from moving is recommended. Two locking methods are offered and illustrated in this brochure.

Prevent slider panels from overextension or obstruction from their fixed deck pocket. Slider extensions should use a minimum 1/2" diameter grade 5 stop bolt. Slamming the slider against the stop bolt may cause the bolt to shear.

The minimum load to buckle the side walls will be dramatically decreased should those walls become bent, penetrated, or damaged. Routinely inspect the slider panels to ensure that the

side walls are smooth and straight, replacing any compromised sliders before use.

Slider panels should be extended and retracted via tools that can position them while the operator maintains a safe distance from any open deck edge. This brochure features such tooling to be used for this procedure. Do not operate slider panels by kicking them out or leaning over and pulling where operators risk losing their balance.

Styles #10 & #20 deck panels can telescope and are subject to binding when the fixed deck welds to a structure without proper leveling. Back injuries or fall risk may occur if the operator forces the retracted bound sliders to extend. Proper handling during the fixed deck construction will ensure the sliders' flat deck panel pocket can operate freely.

Proper positioning of the slider panels is critical for the safe operation of any work platform. Uniformly extend these panels to avoid gaps or holes in deck coverage that may cause personnel to fall.

Slider panels should only be used on maintenance platforms by adequately trained personnel. Do not deploy in public areas.

Smooth panels should be metal sprayed (to increase surface roughness), coated with non-skid paint, or covered with a non-skid type surface.



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