U.S. Department of Homeland Security
United States Coast Guard

Activity Summary Report

MISLE Activity ID:	5792383
Activity Type:	Vessel Inspection
Title/Description:	Domestic Vessels - Hull Exam
Status:	Closed - Approved Inspection
Point Of Contact:	[redacted]
Owning Unit:	Sector Virginia
Originating Unit:	Sector Virginia
Start Date/Time:	06JAN2016 20:20Z
Prompt Date:	
Team Lead:	[redacted]

Vessel Information:

Vessel Name:	Call Sign:	Current Flag / Flag At Time Of Activity:
SPIRIT OF NORFOLK	WDJ2746	UNITED STATES / UNITED STATES
Classification:	**Primary VIN:**	**Length:**
Passenger Ship - Party/Head Boat (other than fish) - General (More Than 6, Gross Tonnage < 100)	982944	169.0
ITC/Convention (Subpart B):	**Regulatory (Subpart C or D):**	**Year Completed:**
1151	99	1992
Engine Compartment In An Open Space:	**Fuel Compartment In An Open Space:**	**Vessel Constructed Of All Open Spaces:**
Not Applicable	Not Applicable	Not Applicable
Propulsion System Type:		
Diesel Reduction		

Vessel Associated Parties:

Name:	Type:	Role:
HORNBLOWER CRUISES AND EVENTS LLC	Organization	Managing Owner
Address:		
455 N CITYFRONT PLAZA DR STE 2600 CHICAGO, ILLINOIS 60611		
Name:	**Type:**	**Role:**
HORNBLOWER CRUISES AND EVENTS LLC	Organization	Operator (in control/in charge)
Address:		
455 N CITYFRONT PLAZA DR STE 2600 CHICAGO, ILLINOIS 60611		

Inspection Results:

System:	Inspection Results:	Date:
Accommodation/Occupational Safety	Inspected Satisfactory	31MAR2016
Construction/Loadline	Inspected Satisfactory	31MAR2016
Deck/Cargo	Inspected Satisfactory	31MAR2016
Stability	Inspected Satisfactory	31MAR2016

Narrative:

This inspection was conducted in accordance with applicable U.S. laws, regulations, and policies, and using the T & K Inspection Books CG-840T (Rev 04/11 and 01/10) as guides.

00 CG-835s were issued this inspection, 00 CG-835s were cleared, and 00 CG-835s remain outstanding.

Items retained for files:

1. Signed Activity Summary
2. Copy of Amended COI
3. Material Specifications on DVD-RW

Comments:

07 January 2016: [redacted] attended the vessel to conduct a hull examination. Conducted bottom walk and inspected all internal spaces, issuing the following worklist items:
1. Make all specifications and plans available for planned interior renovations to furnishings, carpeting, fixtures, or any other modifications.
2. Remove grates and make sea chests available for inspection.
3. Make all sea valves available for inspection.
4. Provide marine chemist certificate for sewage tank and make available for inspection. Make compartment underneath male head available for inspection.
5. Provide copies of any shaft bearing readings conducted.
6. Provide copies of any hull thickness gauging conducted.
7. Forward peak: make permanent connection from high water level sensor to junction box.
8. Bow: crop and renew at deck line on port side entrance to line locker.
9. Bow: replace two gooseneck vents on port side.
10. Main deck: make bulkhead behind aluminum paneling available for inspection on aft bulkhead of port side bus station.
11. Fresh water tank: conduct thickness gauging of tank top on port side.
12. Fresh water tank: repair cracked weld at center line baffle & aft bulkhead, approximately 4 feet from deck.
13. Galley: crop and renew area approximately 2'x2' in vicinity of dumwaiter where reinforcement plate is currently.

08 January 2016: [redacted] attended the vessel to inspect sea chests, all sat. Cleared worklist item 2. Received copy of shaft bearing readings, all sat. Cleared worklist item 5.

12 January 2016: Received copy of hull thickness gauging report, all sat. Cleared work list item 6. Received specifications on new valves, all sea valves are being replaced, all sat, cleared worklist item 3.

15 January 2016: [redacted] attended the vessel. Inspected repair of line locker coaming, all sat, cleared worklist item 8. Inspected gooseneck vents on bow, all sat, cleared worklist item 9. Inspected area behind paneling in main deck bus station, all sat, cleared worklist item 10. Inspected compartment under male head, all sat. Vessel's UT gauging report including readings taken on sewage tank area of hull, cleared worklist item 4. Inspected junction box in forward peak, all sat, cleared worklist item 7. Inspected repaired weld in fresh water tank, all sat, cleared worklist item 12. Inspected insert in galley, all sat, cleared worklist item 13. Identified the following additional worklist items:
14. Crop and renew potable water pipes at penetration of main deck, behind bar.
15. Crop and renew aft bulkhead on main deck in vicinity of the bar.

20 January 2016: [redacted] attended the vessel and inspected fit-up on aft bulkhead near bar, all sat.

21 January 2016: [redacted] attended the vessel. Insert in aft bulkhead near bar does not require a back gouge due to only being 3/16" thick steel per guidance in NVIC 7-68. Witnessed air test on insert, all sat, cleared work list item 15. Inspected coupling sleeve at deck penetration of potable water pipes near bar, all sat, cleared worklist item 14. Inspected propellers, locking nut, and cotter pin, all sat. Identified an additional area of corrosion on port side, engine room in vicinity of exhaust discharge. Added the following worklist item:
16. Crop and renew approximately 5'x1.5' port side engine room in vicinity of exhaust discharges.

22 January 2016: [redacted] attended the vessel to inspect fit-up on port engine room insert, all sat.

23 January 2016 [redacted] attended the vessel to inspect back gouge on port engine room insert, all sat.

25 January 2016: [redacted] attended the vessel to witness vacuum box test on port engine room insert, all sat. Cleared worklist item 16.

01 February 2016: Vessel returned to water to complete interior renovations dockside.

20 February 2016: Received copies of all specifications on materials used for renovations. All spaces being modified are designated as high risk accommodation spaces IAW Subchapter K, and fire load is not expected to exceed 7.5 lbs per sq ft, therefore fire load calculations are not required to be submitted per 46 CFR 116.427. Cleared worklist item 1. Due to the file size of all applicable material specifications and fact that fire load calculations need not be submitted, information will be loaded to a disc to be kept in Sector Hampton Roads hard copy files for future reference.

11 March 2016: [redacted] attended the vessel to conduct intermediate verification spot checks of material against supplied specifications, all sat.

22 March 2016: [redacted] attended the vessel to verify installation of carpeting and to inspect first stage of fire-stop sealant on one sound cable penetration near DJ booth on main deck, all sat.

31 March 2016: [redacted] attended vessel for final checks on materials and to inspect final installation of fire boundary material on cable penetration, all sat. All worklist items complete, credit drydock given this date.

This vessel is considered fit for the service and route shown on the vessel's Certificate of Inspection. Inspection complete.

[redacted]

Inspection Details

Inspection Type:	Date:	Unit:
Hull Examination	31MAR2016	Sector Virginia

Streamlined Inspection Program (SIP) Summary:

Vessel Name: SPIRIT OF NORFOLK

Company Name:

PHASE I

Inspector Comments:

PHASE II

Inspector Comments:

PHASE III

Inspector Comments:

PHASE IV

Inspector Comments:

Location(s):

Latitude:	Longitude:	Recorded Date/Time:	Description:
36°50.0 N	076°16.1 W	01FEB2016 20:20Z	COLONNA'S SHIPYARD, INC.
Latitude:	**Longitude:**	**Recorded Date/Time:**	**Description:**
36°50.7 N	076°17.6 W	31MAR2016 19:20Z	Waterside Marina

Associated Parties: (None)

TWIC Details:

Worker Type:	Checked:	Compliant:	Noncompliant:	Remarks:
Unlicensed Mariner	0	0	0	

Radiation Details:

Radiation: No Radiation Detected

Operational Controls: (None)

Log:

Effective Date:	Description/New Value:	Logged By Unit:	Logged By:
06APR2016	Involved Personnel Point Of Contact: No	Sector Virginia	[redacted]
06JAN2016	Involved Personnel Point Of Contact: No	Sector Virginia	[redacted]
06APR2016	Involved Personnel Point Of Contact: No	Sector Virginia	[redacted]
06JAN2016	Involved Personnel Point Of Contact: No	Sector Virginia	[redacted]
06APR2016	Involved Personnel Point Of Contact: No	Sector Virginia	[redacted]
06APR2016	Involved Personnel Point Of Contact: No	Sector Virginia	[redacted]
06JAN2016	Owning Unit: Sector Hampton Roads	Sector Virginia	[redacted]
06JAN2016	Point Of Contact: [redacted]	Sector Virginia	[redacted]
07JAN2016	Point Of Contact: [redacted]	Sector Virginia	[redacted]
06JAN2016	Start Date: 1/6/2016 8:20:58 PM	Sector Virginia	[redacted]
25APR2016	Status/Subtype: Closed/Approved Inspection	Sector Virginia	[redacted]
06JAN2016	Status/Subtype: Open/In Progress	Sector Virginia	[redacted]
06APR2016	Status/Subtype: Open/Submitted for Review	Sector Virginia	[redacted]

06JAN2016	Title: Domestic Vessels - Hull Exam	Sector Virginia	[redacted]
06JAN2016	Vessel: SPIRIT OF NORFOLK	Sector Virginia	[redacted]

Documents: (None)

Certificates:

Name:	Type:	Description:	
COI - Amended 25Apr2016	Certificate of Inspection - Amended		
Owning Unit:	**Status:**	**Issued Date:**	**Expired Date:**
Sector Virginia	EXPIRED	02FEB2015	02FEB2020

CATEGORY	CODE	BRAND	MODEL	DESCRIPTION	Spec Sheet	Test/ Standard	Flame & Smoke
4-Feb-14							
	CL1	GC CUSTOM	N/A	Perimeter Soffit Refinishing Metal Sheathing		NA	Non Com
	CL2	GC CUSTOM	N/A	New Stone and tile Decorative Bar Soffit Metal Support Structure		NA	Non Com
	CL 3	CHICAGO METALLICS	PLANOSTILE™	Lay-in Metal Panel Ceiling	Y	ASTME-84	0 & 0
		CHICAGO METALLICS	PLANOSTILE™	Grid: Planostile 9/16"	Y	ASTME-84	0 & 0
	CL4	CHICAGO METALLICS	INFINITY	Edge trim: Z Razor trim	Y	ASTME-84	0 & 0
CEILINGS	CL5	CHICAGO METALLICS	PLANOSTILE™	Restroom Ceiling same spec above		NA	Non Com
	CL6	GC CUSTOM	N/A	Metal Troughs at dance floors		NA	Non Com
	CL7	CHICAGO METALLICS	INFINITY	Raised Ceiling Areas - same spec above	Y	ASTME-84	0 & 0
	CL 8	GC CUSTOM	N/A	Aluminum Soffit enclosure		NA	Non Com
DOORS	DR1	GC MILLWORKER		refinish existing doors		NA	Non Com
	FC 1	MASLAND		Carpet	Y	ASTME- 648	> 0.45 w/cm
	FC 2	Iris US		Porcelain Floor Tile		NA	Non Com
FINISH FLOOR	FC 4	Ardex		Self Leveling Compound for Tile Installation & transitions		NA	Non Com
	FC-5	Maipai		Floor Tile Grout		NA	Non Com
	FC6	Flowcrete		Industrial Floor Coating	Y		
GLASSS/ MIRROR	GL 2	GC CUSTOM		BAR MIRROR AT LIQUOR DISPLAY		NA	Non Com
	GL 3			VANITY MIRROR AT RESTRMS		NA	Non Com
	L1	EGLO	MADRAS	Wall Sconce	Y		
	L2	MP LIGHTING	L58S W30S 120 MA	LED Cabinet Light	Y	CSA	
	L3	LEDLINEAR	VARIO LED FLEX	LED Strip	Y	Intertek	
	L4	WAC LIGHTING Co.	HR-D425-BN, HR-8402H	Downlight	Y	UL & CUL	
	L5	TRINORTHLIGHTING		Liquor Display Accessory	Y		
	L6	JLDESIGNS		Led Strip	Y	Intertek- ETL	
	L7	LUMITEC LIGHTING	ANDROS	Step lighting	Y	CE	
LIGHTING	L-09		N/A	Owners DJ Lights - LED Color Bars	Y		
	L-10		N/A	Owners DJ Lights - moving heads	Y		
	L-11			LED Bulbs	Y		
	L-12			Not Used	Y		
	L-14			Atrium Pendant Lights	Y		
	L-15	BARN LIGHT ELECTRIC	BLE-W-WHME	Restroom Wall Sconce	Y		
	L-16	LEDLINEAR	VARIO LED FLEX	Outdoor Rated Led Strip	Y		
	L-17	MP LIGHTING	L131 Exterior	Outdoor Bar Soffit Lights	Y	CSA	
	L-18	WAC LIGHTING Co.	Line 36" Wide	Wallsconce accent wall	Y		
	M 1	GC CUSTOM		Aluminum		NA	Non Com
	M-02	GC CUSTOM		Not Used		NA	Non Com
	M-03	GC CUSTOM		ROLLING GATE		NA	Non Com
	M-05	GC CUSTOM		ANTI SLIP METAL STAIR TREADS		NA	Non Com
	M-06	GC CUSTOM		METAL KICK PLATES		NA	Non Com
	M-07	GC CUSTOM		DOOR SADDLE REPLACEMENT		NA	Non Com
	M-08	GC CUSTOM		STONE COUNTER SUPPORT		NA	Non Com
	M-09	GC CUSTOM		TROUGH FOR SPEAKERS		NA	Non Com
	M-14	GC CUSTOM		STAINLESS FOOT RAIL - SEE DETAILS		NA	Non Com
	M-11	GC CUSTOM		GLASS HANGERS		NA	Non Com
METALS	M-12	GC CUSTOM		CORNER GUARDS METAL TRIMS		NA	Non Com
	M-13	GC CUSTOM		METAL BAR CABINETS		NA	Non Com
	M-10	GC CUSTOM		DECK PENETRATIONS PER FIRE STOP DETAIL		NA	Non Com
	M-15	GC CUSTOM		WELDING		NA	Non Com
	M-16	GC CUSTOM		UNISTRUT FOR SOFFITS		NA	Non Com
	M-17	GC CUSTOM		METAL STUDS		NA	Non Com
	M-18	GC CUSTOM		DRINK RAIL		NA	Non Com
	M-19	GC CUSTOM		STAINLESS SHEATHING		NA	Non Com
	M-20	GC CUSTOM		3/8" METAL ROD SUPPORTS		NA	Non Com
	M-22	GC CUSTOM		SHLUTER STRIPS AT ALL TILE		NA	Non Com
	M-23	GC CUSTOM		METAL MESH RAILING SYSTEM		NA	Non Com
	M-24	GC CUSTOM		STAINLESS HANDRAIL		NA	Non Com
	PT-01	GC CUSTOM		Less than 2 mm thick		NA	
	PT-02	GC CUSTOM		Less than 2 mm thick		NA	
PAINT	PT-05	GC CUSTOM		Less than 2 mm thick		NA	
	PT-03	GC CUSTOM		Less than 2 mm thick		NA	
	PT-04	GC CUSTOM		Less than 2 mm thick		NA	
	PT-06	GC CUSTOM		Less than 2 mm thick		NA	
PLASTIC LAMINATE	PLM 1	WILSONART	Fire Rated Laminate	Less than 2 mm thick	Y	ASTME-84	15 & 0
	PLM 2	WILSONART	Fire Rated Laminate	Less than 2 mm thick	Y	164.012/35/0	
	PTN -A	GC CUSTOM		FULL HEIGHT PARTITION		NA	Non Com
	PTN-B	GC CUSTOM		BAR DYE		NA	Non Com
	PTN-C	GC CUSTOM		TILE BACKER		NA	Non Com
PARTITIONS	PTN-D	GC CUSTOM		FURRING		NA	Non Com
	PTN-G	GC CUSTOM		PERIMETER REPAIR		NA	Non Com
	PTN-H	GC CUSTOM		PARTIAL HEIGHT PARTITION		NA	Non Com
	PTN-J	GC CUSTOM		PERIMETER SOFFIT REWORK		NA	Non Com
	PF-01	Deco Lav		SEMI RECESSED VANITY SINK		NA	Non Com
PLUMBING	PF-02	Mac Faucets		VESSEL SENSOR FAUCET		NA	Non Com
	PF-03	GC CUSTOM		WATER LINES - REPLACEMENT		NA	Non Com
	PF-04	Soap Dispenser				NA	Non Com
	PF-05	Equipment Connections				NA	Non Com
	PF-06	Pedestal Sink				NA	Non Com
	SS-01	North Star - Hanex		Window Sill Solid Surface	Y	ASTME-84	
STONE	QZ-02	Silestone		Restroom quartz Vanity	Y	ASTME-84	5 & 25
	QZ-01	Silestone		Bar Quartz Tops	Y	ASTME-84	5 & 25
	WC 1	XOREL	METEOR 6427	Less than 2 mm thick	Y	ASTME-84	15 & 20
	WC 2	XOREL	METEOR 6427	Less than 2 mm thick	Y	ASTME-84	15 & 20
	WC 3 & 4	XOREL	METEOR 6427	Less than 2 mm thick	Y	ASTME-84	15 & 20
WALL COVERING	WC-05	ARTISTIC TILE		Porcelain Tile		NA	Non Com
	WC-06	ARTISTIC TILE		Glass Tile		NA	Non Com

	WC-07	DESIGN TEX		Less than 2 mm thick Wallcovering		Y	ASTME-84	
	WC-09	ARTISTIC TILE	Artistic Tile	Porcelain Tile			NA	Non Com
	WD-01	GC CUSTOM		Vanity Console - furniture				Comb load
LAMINATE							NA	

ITEMTYPEID	CODE	DESCRIPTION	
	CL-01	REFINISH EXISTING METAL SOFFIT STRUCTURE - MAIN DK DINING - 2ND DK DINING - LABOR & MATERIALS	
	CL-02	BAR SOFFIT PARTITION J - SEE TILE ABOVE. SEE METALS CHROME RACKING, SEE QUARTZ FOR FASCIA, SEE METAL STAINLESS BACKER & FRAMING, SEE METAL UNISTRUT AND ROD SUPPORT	
	CL-03.A	2X2 METAL CEILING TILE - LAY-IN WITH SQUARE EDGE REVEAL - MATERIAL	
	CL-03.B	9/16" METAL GRID	
	CL-04	RECESSED METAL TROUGH FOR DJ LIGHTS & SPEAKERS -PROVIDE & INSTALL - SEE POWDER COAT PAINT , SEE METAL TROUGH	
	E.01	WAIT STN EQUIPMENT- MAIN DECK AFT STATION, 2ND DK AFT STATION	
	E.02	BAR EQUIPMENT - NEW POWER OUTLETS	
	E.03	GLASS WASHER - NEW POWER OUTLETS	
	E.04	UPS - REMOTE LOCATE IN HOLD CLOSET - HOMERUNS FROM EACH POS STATION	
	E.05	STEP LIGHT INSTALLATION WITH WIREMOLD - SEE PAINT SPECS	
	E.06	EXISTING CAMERAS - GC TO RE-INSTALL ONTO NEW CEILING, PROVIDE ADJUSTMENT TO ELECTRICAL OUTLETS AS NEEDED	
	E.07	DJ POWER - PROVIDE POWER & SPEAKER OUTLET UNDER BOOTH	
	E.08	DJ POWER RELOCATE TO CENTRAL AREA OF BOOTH	
	E.09	not used	
	E.10	DJ LIGHTING POWER FOR SUPPLIED LIGHTING - GC COORDINATE	
	E.11	GC PROVIDE MIN TWO GENERAL PURPOSE OUTLETS FOR VACUUMING ETC - VIF	
	E.12	TV LOCATIONS - GC PROVIDE POWER & DATA AS NEEDED	
	E.13	SPEAKERS NEW & RELOCATED - GC TO ASSIST WITH THE CABLE INSTALL AS NEEDED, COORDINATE WITH OWNER FOR SCOPE	
	E.14	24 VOLT 50 WATT - LED EM LIGHTS	
	DR-01.A	REFINISH INTERIOR ENTRY DOUBLE DOORS - SAND BLAST, PRIME & PAINT	
	DR-03.A	~~NEW EXTERIOR METAL SPLIT DOORS - DOOR WEATHER PROOF - SEE; PAINT FINISH,THRESHOLD, HARDWARE; STONE~~	
	FC-01.A	LABOR - PREPARE DECKS FOR NEW FINISHES	Wiring
	FC-04.A	LABOR & MATERIALS - PRIME & SELF LEVEL FOR TILE INSTALLATION	Wiring
	FC-06	LABOR & MATERIALS - INDUSTRIAL FLOOR COATING ALL BARS AND SERVICE AREAS	Wiring
	GC-01	GENERAL CONDITIONS	Wiring
	GC-04	DRY DOCK ALLOWANCE	Metals
	GC-02	CONTINGENCY ALLOWANCE	
	GC-03	DECK PENETRATIONS	
	GC-05	WELDING ALLOWANCE	Ceilings
	GL-02	BAR MIRRORS - MAIN DK AND SECOND DECK - BACK PANELS AT LIQUOR DISPLAY MILLWORK	Ceilings
	GL-01.A	VANITY MIRROR AT MAIN DK ADA RESTROOM	Upholstery
	LM-01	BACK BAR ABOVE COUNTER CASEWORK - PER ELEVATIONS & DETAILS - MAIN DK, SECOND DK, TOP DK	Plumbing
	L-01	NEW - PERIMETER LED LIGHT	Plumbing
	L-02	BAR SOFFIT SPOT	Stone
	L-03.A	LED STRIP AND DRIVERS FOR INDOORS BAR FRONTS	Flooring
	L-04.A ADJUSTABLE EYE		Laminate
	L-04.B	HOUSING FOR DOWNLIGHTS	Plumbing
	L-05	BAR LIGHT SHELVES	Glass
	L-06	GLASS RACK WARM WHITE LED STRIP	General Conditions
	L-07	STEP LIGHT	Paint
	L-08	ALTERNATE GRAPHIC EYE DIMMING ALTERNATE - DIMMERS ALL LIGHTING BASE BID	Electrical & Data
	L-09	DJ DANCE LIGHTING - SEE OWNER SUPPLIED	Electrical & Data
	L-10	MOVING HEAD DANCE FLOOR LIGHTS - SEE OWNER SUPPLIED	Electrical & Data
	L-11	LED BULBS FOR DOWNLIGHTS AND SCONCES	Owner Provided
	L-12	RESTROOM LIGHT WOMEN'S ROOM ALLOWANCE	Owner Provided
	M-02	SCHLUTER - FOR WALLS	Owner Provided
	M-03	ROLLING GATE	Owner Provided
	M-06	METAL KICK PLATES	Owner Provided
	M-08	STONE COUNTER STRUCTURAL SUPPORT	Owner Provided
	M-09	TROUGH FOR SPEAKERS A - SEE CEILINGS CL-04	Owner Provided
	M-14	CANTILEVERED DETAIL STAINLESS FOOT RAIL - SEE PARTITION DETAILS	Owner Provided
	M-11	GLASS HANGERS	Owner Provided
	M-12	CORNER GUARDS AND WALL CAPS	Owner Provided
	M-13	NOT USED	Owner Provided
	M-10	DECK PENETRATIONS PER FIRE STOP DETAIL	Owner Provided
	M-15	WELDING AS REQUIRED	Owner Provided
	M-16	UNISTRUT AS REQUIRED FOR CEILINGS	Owner Provided
	M-17	METAL STUDS FOR PARTITIONS - RUNNER WELDED TO DECK - SEE PARTITIONS	Owner Provided
	M-18	DRINK RAIL	Owner Provided
	WC-11	MATERIAL & INSTALLATION STAINLESS SHEATHING - FOR SOFFITS, PERIMETER WALLS AND WALL SURFACES WHERE I	Wallcovering
	M-20	3/8" METAL ROD SUPPORTS FOR SOFFIT SUPPORTS AS REQUIRED	
	M-22	SHLUTER STRIPS AT FLOOR TILE	
	M-23	REWORK STAIR TOWER HANDRAIL - REPLACEMENT CAP - ALSO SEE GLASS - ALSO SEE PAINT	
	PT-01	SOFFIT & TRIM PAINT - MATCH WALLCOVERING	Wallcovering
	PT-02	TROUGH PAINT	Plumbing
	PT-05	PAINT DOORS, FRAMES AND TRIM AROUND WINDOWS	Metals
	PT-03	STAIR TOWER RAIL PAINT	Ceilings
	PT-04	CEILING ALUMINUM CURTAIN TRACK DETAIL	
	PT-06	WALL PERIMETER FLOORING TRANSITIONS - AT FLOOR LINE ALL THE WAY AROUND PERIMETER	
	PTN -A	FULL HEIGHT PARTITION SIZED TO PLAN DETAILS- SEE METALS	Metals
	PTN-B	PARTITION BAR DIE- SEE METALS	Wallcovering
	PTN-C	ACCENT TILE FEATURE WALL - TILE BACKER OVER NEW STUD - SEE TILE - SEE STONE TRIM - SEE METALS SCHLUTER	Owner Provided
	PTN-D	FURR OVER EXISTING STRUCTURE TO PLAN DIMENSIONS	Paint
	PTN-G	PERIMETER REPAIR, METAL SHEATHING REPLACEMENT TO ACHIEVE SMOOTH SURFACE FOR NEW WALLCOVERINGS -	Electrical & Data
	PTN-H	TILE BACKER OVER EXISTING WALLS	Wallcovering
	PTN-K	PERIMETER SOFFIT STRUCTURE REWORK - REPLACE DAMAGED WOOD CEILING AND TRIM	Wood
	PL-02	UNDERMOUNT VANITY SINK - 2ND DK WOMENS	Paint
	SS-01.A	WINDOW SILLS THROUGHOUT AND MAIN DECK DRINK COUNTERS - SEE RELATED METAL RAILING SYSTEM	
	QZ-01.A	ALL BAR COUNTERTOPS	
	FC-02.A	MATERIAL - TILE FLOOR	
	FC-05	LABOR & MATERIALS - GROUT FOR FLOOR TILE - FLEXIBLE GROUT WITH SEALER	
	WC-03.A	MATERIAL - INDOOR BAR FRONTS TILE -MAIN DK & 2ND DK	
	FC-03.A	MATERIAL OPTION - DANCE FLOOR TILE	
	WC-05.A	MATERIAL - ACCENT WALL TILE AT BUFFETS AREAS - MAIN DK & 2ND DK	
	WC-01.A	MATERIALS - XOREL WALL COVERING MATERIAL - WITH X-Protect™ Wall BACKING	
	WC-02.A	MATERIAL - 2ND DK RESTROOMS -XOREL WALL COVERING - WITH X-Protect™ Wall BACKING	
	WC-01	LABOR FOR WC-01 INSTALLATION - MAIN DK, 2ND DK AND HOLD CORRIDOR	
	M-24.A	STAINLESS HANDRAIL - MAIN DECK TO HOLD RESTROOMS	
	PL-01.C	BAR EQUIPMENT - HAND SINKS, DUMP SINKS AND ICE BINS - NEW PIPING, FLOOR SINKS - DISTIBUTION & CONNECTIONS	
	PL-06	INSTALL WAIT STN EQUIPMENT AND PROVIDE PLUMBING RE-ROUTE AND CONNECTIONS	
	W-01	14AWG 3 CONDUCTOR LOW SMOKE HALOGEN	
	W-02	DATA CAT 6 PLENUM RATED	
	W-02	GRAPHIC EYE UPGRADE SYSTEM WIRING	
	W-04	COVER PLATES AND DEVICES REPLACED IN NEW BARS AND NEW WAIT STN	
	M-27	INDOOR DRINK RAIL HANDRAIL ASSEMBLY WITH SOLID SURFACE COUNTER - SEE STONE SPECS	
	L-14	OUTDOOR RATED BAR SOFFIT LIGHT- BAR FRONT & GLASS RACK	
	L-13	OUTDOOR RATED LED STRIP LIGHT	
	CL-05	SUPPLY DIFFUSERS - MATERIAL & LABOR	
	CL-06	2X2 RETURN AIR DIFFUSERS- MATERIAL & LABOR	
	PL-04	SOAP DISPENSER SINK MOUNTED - VESSEL SOAP DISPENSER-REUSE EXISTING	
	PL-03B	P-TRAP ALL BATHROOMS-REWORK AS NECESSARY	
	QZ-01.B	OUTDOOR BAR SPLIT DOOR TRANSACTION COUNTER	
	LM-02	VANITY CASEWORK - MAIN DK ADA RESTROOM, HOLD DK MENS & WOMENS RESTRMS, 2ND DK WOMENS RESTROOM	
	GL-01.B	VANITY MIRRORS AT SECOND DECK WOMENS RESTROOM	
	GC-06	OTHER	
	PT-07	OUTDOOR BAR DOOR AND ADJACENT PARTITIONS	
	E.15	DEDICATED OUTLETS FOR ICE WARMERS	
	E.16	ICE MAKERS AS REQUIRED	
	E.18	BUFFET TABLES - NEW WALL MOUNT CONVENIENCE OUTLETS	
	O-01	TRASH BIN	
	O-03	SCHIMMER SCREEN	
	O-01	CARPET	
	O-05	FURNITURE	
	O-06	DJ BOOTH	
	O-02	BAR EQUIPMENT -	
	O-10	DJ LIGHT- MOVING HEADS	
	O-11	DJ EQUIPMENT	
	O-12	SPEAKERS	
	O-14	BAG N BOX	
	O-15	TV'S	
	O-16	SIGNAGE	
	O-17	PAPER TOWEL & TRASH UNIT	

WC-01.B	MATERIALS - COLUMNS - XOREL WALL COVERING MATERIAL - WITH X-Protect™ Wall BACKING
QZ-02.A	RESTROOM VANITY TOPS-2nd DECK WOMEN's, UNISEX MAIN, HOLD MEN S & WOMEN S
CL-07	SECURITY & LIFE SAFETY EQUIPMENT REUSE - REINSTALL LABOR
L-15	WALL SCONCE AT ACCENT WALL
WC-04.A	MATERIAL - OUTDOOR BARFRONT TILE MATERIAL
WC-06	MATERIAL AND INSTALLATION - GROUT
O-18	REMOVALS & CLEANING OF SALVAGED PLUMBING FIXTURES
E.17	FOUR HEATERS AT OUTDOOR BAR AREA - GC PROVIDE AND INSTALL
DR-01.B	REFINISH INTERIOR DOORS - SAND BLAST, PRIME & PAINT - SEE PAINT FINISH
QZ-01.E	~~OUTDOOR DRINK RAILS~~
M-28	~~OUTDOOR DRINK RAILS~~
M-01	MAIN DECK RAILING AROUND STAIR & RAMP INCLUDING FLOOR PLATE ON MAIN DECK
PL-01.B	BAR EQUIPMENT - INDOOR DISHWASHERS - REWORK EXISTING DRAIN PIPING AND FLOOR SINK - MAIN DK & 2ND DK
PL-01.A	BAR EQUIPMENT - OUTDOOR GLASS WASHER - NEW FLOOR SINK & DRAIN PIPING
LM-01.B	HVAC CLADD PANELS - LAMINATE PANELS MOUNTED IN U-CHANNELS - REMOVABLE - FOR MAIN DK. & 2ND DK
M-25	U-CHANNEL FOR MOUNTING LAMINATE PANELS TO HVAC
CL-08	HEADER MOUNTED FLUSH WITH CEILING FOR RECESSED CURTAIN TRACK (CURTAIN & TRACK PROVIDED BY OWNER) - PAINT WHITE
LM-01.A	LIFE JACKET STORAGE MILLWORK REPLACEMENT LAMINATE FACE FRAME AND DOORS - ON MAIN DK AND 2ND DK
M-26a	HARDWARE FOR VANITY DOORS - HINGES AND HANDLES
SS-01.C	SOLID SURFACE - PROVIDE LARGE ACCESS PANEL IN MAIN DECK LIFE JACK STORAGE TOP - PORT SIDE
M-21	STAINLESS STEEL TOILET PARTITIONS
M-07	STAINLESS SUSPENDED COAT RACK
GL-03	STAIR TOWER RAIL - GLASS REPLACEMENT
E.19	NETWORK RUNS TO CENTRAL UPS TO HOLD CLOSET
E.20	MANAGERS STATION - POWER & DATA - RUNS TO UPS & NETWORK SERVER
	MOVE BB CHANGER TO FIRST STALL WOMENS SECOND DECK
	NEW BB CHANGER INSTALL

Professional Testing Laboratory, Inc.

TEST REPORT

DATE: 04-06-2015 **TEST NUMBER:** 0218343

CLIENT	Masland Carpets

TEST METHOD CONDUCTED	ASTM E648 Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using A Radiant Heat Energy Source, also referenced as NFPA 253 and FTM Standard 372

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	724GA
COLOR	91643
ROLL NUMBER	R0073582043
CONSTRUCTION	Multi-Level Loop Pile
BACKING	Woven Synthetic

GENERAL PRINCIPLE

This procedure is designed to measure the critical radiant flux at flame out of horizontally mounted floor covering systems exposed to a flaming ignition in a test chamber which provides a graded radiant heat energy environment. The imposed radiant flux simulates the thermal radiation levels likely to impinge on the floors of a building whose upper surfaces are heated by flames from a fully developed fire in an adjacent room or compartment. The test result is an average critical radiant flux (watts/square cm) which indicates the level of radiant heat energy required to sustain flame propagation in the flooring system once it has been ignited. A minimum of three test specimens are tested and the results are averaged. Theoretically, if a room fire does not impose a radiant flux that exceeds this critical level on a corridor floor covering system, flame spread will not occur.

The NFPA Life Safety Code 101 specifies as Class 1 Critical Radiant Flux of .45 watts/sq cm or higher and Class 2 Critical Radiant Flux as .22 - .44 watts/sq cm.

FLOORING SYSTEM ASSEMBLY			
SUBSTRATE	Mineral-Fiber/Cement Board	**UNDERLAYMENT**	Direct Glue Down
ADHESIVE	Advanced Adhesive 275	**CONDITIONING**	Minimum of 96 hours at 70 ± 5° F and 50 ± 5% relative humidity

	Distance Burned	**Time To Flame Out**	**Critical Radiant Flux**
Specimen 1	17 cm	14 minutes	0.95 watts/square cm
Specimen 2	24 cm	17 minutes	0.78 watts/square cm
Specimen 3	21 cm	17 minutes	0.85 watts/square cm

Average Critical Radiant Flux	0.86 Watts/Square Cm
Standard Deviation	0.07 Watts/Square Cm
Coefficient of Variation	8.11 %

**** NOTE: Meets or exceeds Class 1 rating as specified in NFPA Life Safety Code 101 and IBC 804.2 Classification.***

APPROVED BY: [redacted]

714 Glenwood Place Dalton, GA 30721 Phone: 706-226-3283 Fax: 706-226-6787 email: protest@optilink.us

Professional Testing Laboratory, Inc.

TEST REPORT

DATE: 03-31-2015 **TEST NUMBER:** 0217216

CLIENT	Masland Carpets

TEST METHOD CONDUCTED	ASTM E662 Smoke Density (Flaming) Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials also referenced as NFPA 258

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	724GA
COLOR	91643
ROLL NUMBER	R0073582043
CONSTRUCTION	Multi-Level Loop Pile
BACKING	Woven Synthetic

GENERAL PRINCIPLE

This procedure is designed to measure the specific optical density of smoke generated by the test specimen within a closed chamber. Each specimen is exposed to an electrically heated radiant-energy source positioned to provide a constant irradiance level of 2.5 watts/square cm on the specimen surface. Measurements are recorded through a photometric system employing a vertical beam of light and a photo detector positioned to detect the attenuation of light transmittance caused by smoke accumulation within the chamber. The light transmittance measurements are used to calculate specific optical density, a quantitative value which can be factored to estimate the smoke potential of materials. Two burning conditions can be simulated by the test apparatus. The radiant heating in the absence of ignition is referred to as the Non-Flaming Mode. A flaming combustion in the presence of supporting radiation constitutes the Flaming Mode.

CONDITIONS			
PREDRYING OF TEST SAMPLE **CONDITIONING OF TEST SAMPLE** **TESTING CONDITION**	24 Hours at 140° F 24 Hours at 70° F and 50% Relative Humidity As Received		
FURNACE VOLTAGE **CHAMBER TEMPERATURE** **TEST MODE**	118 V 95° F Flaming	**IRRADIANCE** **CHAMBER PRESSURE**	2.5 watts/sq cm 3" H_2O

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**FLAMING**	137
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			127
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	149.0	168.0	141.0
Time to Dm (minutes)	7.0	6.5	7.0
Clear Beam (Dc)	15.0	21.0	11.0
Corr. Max Density (Dmc)	134.0	147.0	130.0
Density at 1.5 minutes	11.0	13.0	9.0
Density at 4.0 minutes	125.0	137.0	119.0
Time to 90% Dm (minutes)	2.5	2.5	2.5
Specimen Weight (grams)	12.0	11.4	11.8

**** This sample PASSES the requirements of 450 or less.***

APPROVED BY: [redacted]

NVLAP®

714 Glenwood Place Dalton, GA 30721 Phone: 706-226-3283 Fax: 706-226-6787 email: protest@optilink.us

Professional Testing Laboratory, Inc.

TEST REPORT

DATE: 03-31-2015 **TEST NUMBER:** 0217216

CLIENT	Masland Carpets

TEST METHOD CONDUCTED	ASTM E662 Smoke Density (Non-Flaming) Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials also referenced as NFPA 258

DESCRIPTION OF TEST SAMPLE	
IDENTIFICATION	724GA
COLOR	91643
ROLL NUMBER	R0073582043
CONSTRUCTION	Multi-Level Loop Pile
BACKING	Woven Synthetic

GENERAL PRINCIPLE

This procedure is designed to measure the specific optical density of smoke generated by the test specimen within a closed chamber. Each specimen is exposed to an electrically heated radiant-energy source positioned to provide a constant irradiance level of 2.5 watts/square cm on the specimen surface. Measurements are recorded through a photometric system employing a vertical beam of light and a photo detector positioned to detect the attenuation of light transmittance caused by smoke accumulation within the chamber. The light transmittance measurements are used to calculate specific optical density, a quantitative value which can be factored to estimate the smoke potential of materials. Two burning conditions can be simulated by the test apparatus. The radiant heating in the absence of ignition is referred to as the Non-Flaming Mode. A flaming combustion in the presence of supporting radiation constitutes the Flaming Mode.

CONDITIONS			
PREDRYING OF TEST SAMPLE **CONDITIONING OF TEST SAMPLE** **TESTING CONDITION**	24 Hours at 140° F 24 Hours at 70° F and 50% Relative Humidity As Received		
FURNACE VOLTAGE **CHAMBER TEMPERATURE** **TEST MODE**	118 V 95° F Non-Flaming	**IRRADIANCE** **CHAMBER PRESSURE**	2.5 watts/sq cm 3" H_2O

AVERAGE MAXIMUM DENSITY CORRECTED (Dmc)		**NON-FLAMING**	177
AVERAGE SPECIFIC OPTICAL DENSITY AT 4.0 MINUTES			35
	Specimen 1	**Specimen 2**	**Specimen 3**
Maximum Density (Dm)	177.0	194.0	169.0
Time to Dm (minutes)	19.5	20.0	19.5
Clear Beam (Dc)	2.0	6.0	1.0
Corr. Max Density (Dmc)	175.0	188.0	168.0
Density at 1.5 minutes	0.0	2.0	1.0
Density at 4.0 minutes	31.0	46.0	28.0
Time to 90% Dm (minutes)	17.5	18.0	17.5
Specimen Weight (grams)	12.0	12.2	12.0

**** This sample PASSES the requirements of 450 or less.***

APPROVED BY: [redacted]

714 Glenwood Place Dalton, GA 30721 Phone: 706-226-3283 Fax: 706-226-6787 email: protest@optilink.us

TEST REPORT

DATE: 03-31-2015 **TEST NUMBER:** 0217216

CLIENT	Masland Carpets

TEST METHOD CONDUCTED	Surface Flammability of Carpets and Rugs (16 CFR Chapter II, Subchapter D, Part 1630 CPSC FF 1-70) also referenced as ASTM D2859

	DESCRIPTION OF TEST SAMPLE
IDENTIFICATION	724GA
COLOR	91643
ROLL NUMBER	R0073582043
CONSTRUCTION	Multi-Level Loop Pile
BACKING	Woven Synthetic

GENERAL PRINCIPLE

This test method is intended to measure the response of finished textile floor covering materials when exposed to an ignition source under controlled laboratory conditions. It is applicable to all types of textile floor coverings whether constructed from natural or man-made materials.

TEST CRITERION

The uncharred area of the test specimen must be greater than one inch in at least seven of the eight specimens tested in order to meet the acceptance criterion.

TEST RESULTS

	SPECIMEN NUMBER							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Uncharred Area (Inches)	3.6	3.5	3.6	3.6	3.7	3.7	3.5	3.6

NOTE: This sample was tested on the face side.

This sample *PASSES* the Federal Flammability Standard DOC FF 1-70.

APPROVED BY: [redacted]

714 Glenwood Place Dalton, GA 30721 Phone: 706-226-3283 Fax: 706-226-6787 email: protest@optilink.us

NGC Testing Services

Fire Testing Laboratory

Surface Burning Characteristics
ASTM E-84
CHICAGO METALLIC CORP.

File No: FH-1139 Date: 5-28-98 Project No: H-215 By: RAC

MATERIAL TESTED:

Samples submitted for evaluation were described as follows:

METALINE / SECURLINE BASE METAL WITH AN EXPOSED SURFACE CONSISTING OF:

1. FINISH COAT POLYESTER PAINT 0.85- 1.0 MIL DRY FILM THICKNESS

2. PRIMER- EPOXY PRIMER 0.15-0.20 MIL DRY FILM THICKNESS

METHOD OF SUPPORT:

The samples were self supporting in the test furnace.

RESULTS:

TEST NO.	FLAME SPREAD	SMOKE DEVELOPED
1	0	0
2	0	0
3	0	0

OBSERVATIONS

No ignition occurred in any of the tests. Discoloration and streaking of the panels directly over the ignition flame was observed at approximately 1:30 of each test.

LABORATORY RESPONSIBILITY

National Gypsum Company makes no judgment of product suitability for its intended end use. Product acceptance of field installations is usually the prerogative of the authority having jurisdiction.

Report by:

[redacted]

Construction Project Engineer

Reviewed by:

[redacted]

Group Manager
Testing/Systems

Wilsonart ® Fire-Rated Laminate
Technical Data

1. Manufacturer

Wilsonart International
2400 Wilson Place
P.O. Box 6110
Temple, Texas 76503-6110
Phone: (254) 207-7000; (800) 433-3222
Fax: (254) 207-2384
Web Site: www.wilsonartlaminate.com

2. Product Description

Recommended Uses: Fire-Rated Laminate is recommended for interior application where fire codes specify or the environment suggests a fire-resistant and smoke-resistant surface.

It may be applied as decorative surfacing for casework and cabinets, wainscoting, interior doors, and wall panel and divider systems. This laminate is particularly appropriate for surfacing furniture in public places such as airports, hotels, office buildings and institutions such as hospitals and schools. Fire-Rated Laminate can offer a Class I or A fire rating, provided fire-retardant adhesives and substrates are used.

- Vertical Surface (VGF) Type 604: Intended to surface walls in public spaces and corridors, front panels on commercial casework and other applications where a functional, durable, decorative surface must absorb somewhat less impact than a comparable horizontal surface.
- General Purpose (HGF) Types 605 and (SGF) 607: Produced for both horizontal and vertical applications where the surface must perform under constant use.
- Fire-Rated Backer Type 264: A stabilizing backer sheet for applications where the decorative surface is Vertical Surface Type 604.
- Fire-Rated Backer Type 266: A stabilizing backer sheet for applications where the decorative surface is General Purpose Type 605 or 607.

Product Composition: The decorative surface is composed of melamine resin-treated decorative surface papers. Special kraft core sheets, used to obtain the desired thickness, are impregnated with phenolic resin.

Basic Limitations: Wilsonart Laminate is intended for interior use only, and should be protected from continuous exposure to direct sunlight, extremes in humidity and temperatures greater than 275°F (135°C). It is not structural material and must be bonded to a suitable substrate.

Wilsonart Laminate should not be used as direct covering for plaster or concrete walls, or for gypsum wallboard. It should not be exposed to flame, molten metal, metallic sparks or intense, direct sunlight. Nor should it be used as cutting surfaces.

Pattern and Color Availability:
Wilsonart Fire-Rated Laminate is available in most **Standard Line (DG1)** patterns.

Custom Laminate: Silk Screen & Digital Image are NOT available
Non-Standard Line (DG-2) patterns are NOT available.

Please verify pattern availability by type, size and finish by checking the Laminate Pattern Availability Search @ www.wilsonart.com/design/patternavail

Finishes:

- 60 Matte
  A textured finish with a moderate reflective quality. *Glossometer reading: MD and CD 10 ±2.*

- #7 Textured Gloss
  A textured finish which reproduces the high sheen of waxed wood furniture. Recommended for horizontal and vertical application. *Glossometer reading: MD and CD 42 ± 4.*

- #1 High Gloss

  A mirror sheen finish, which gives a smooth, brilliant appearance. Wilsonart high gloss laminate paired with AEON™ technology can be used for horizontal applications such as countertops, and light to medium horizontal commercial applications. Excellent for vertical application. Gloss items with AEON carry a premium.
  Glossometer reading: MD and CD 110 ± 10.

NOTE: Glossometer readings are made at a 60 angle of incidence. MD means the machine direction of a laminate sheet and CD refers to the cross direction.

Sheet Sizes

48" x 96"	(1219mm x 2438mm)
48" x 120"	(1219mm x 3048mm)

Sheet Thicknesses

Type	Typical Wilsonart Thickness	NEMA Thickness	Weight PSF
Vertical Surface Type 604 (VGF)	0.032" ± 0.005" (0.81mm ± 0.13mm)	0.032" ± 0.005" (0.8mm ± 0.12mm)	0.274#
General Purpose Type 605 (HGF)	0.048" ± 0.005" (1.22mm ± 0.13mm)	0.048" ± 0.005" (1.2mm ± 0.12mm)	0.438#
Specific Purpose Type 607 (SGF)	0.059" ± 0.005" (1.5mm ± 0.13mm)	0.059" ± 0.005" (1.5mm ± 0.12mm)	0.480#
Backer Type 264	0.030" ± 0.004" (0.76mm ± 0.10mm)	0.028" ± 0.004" (0.7mm ± 0.10mm)	0.223#
Backer Type 266	0.050" ± 0.005" (1.27mm ± 0.13mm)	0.048" ± 0.005" (1.2mm ± 0.12mm)	0.359#

Note:** Minimum sheet order requirements: **2 sheets by size, finish and product type

3. Technical Data

Physical Properties of Fire-Rated Laminate

NEMA Test	Typical Wilsonart Type 604 (VGF)	NEMA Standard VGF	Typical Wilsonart Type 605 (HGF)	NEMA Standard HGF	Typical Wilsonart Type 607 (SGF)	NEMA Standard SGF
Thickness	**0.032" (0.81mm)**	0.032" ± 0.005" (0.8mm ± 0.12mm)	**0.048" (1.22mm)**	0.048" ± 0.005" (1.2mm ± 0.12mm)	**0.059" (1.5mm)**	0.059" ± 0.005" (1.5mm ± 0.12mm)
Surface Wear Resistance (cycles)	**700**	400 (min.)	**700**	400 (min.)	**700**	400 (min.)
Boiling Water Resistance	**No effect**	No effect	**No effect**	No effect	**No effect**	No effect
High Temperature Resistance	Slight effect	Slight effect	Slight effect	Slight effect	Slight effect	Slight effect
Radiant Heat Resistance	**100 seconds**	50 sec. (min.)	**150 seconds**	75 sec. (min.)	**200 seconds**	125 sec. (min.)
Stain Resistance Reagents 1-10 Reagents 11-15	**No effect Slight effect**	No effect Moderate effect	**No effect Slight effect**	No effect Moderate effect	**No effect Slight effect**	No effect Moderate effect
Light Resistance	**Slight effect**	Slight effect (min.)	**Slight effect**	Slight effect (min.)	**Slight effect**	Slight effect (min.)
Dimensional Stability Machine Direction Cross Direction	**0.40%** **1.00%**	0.70% (max.) 1.20% (max.)	**0.30%** **0.80%**	0.50% (max.) 0.90% (max.)	**0.30%** **0.80%**	0.50% (max.) 0.90% (max.)
Impact Resistance	**35" (889mm)**	20" (508mm)	**65" (1651mm)**	45" (1143mm)	**75" (1905mm)**	55" (1397mm)
Cleanability (cycles)	**10**	20 (max.)	**10**	20 (max.)	**10**	20 (max.)
Appearance	**No ABC defects**	No ABC defects	**No ABC defects**	No ABC defects	**No ABC Defects**	No ABC defects

Note: Since Fire-Rated backer sheets are not intended to be exposed to light, wear or everyday use, no physical property tests are in current use.

Typical Fire Test Data

Test data for Wilsonart Fire-Rated Laminate is obtained by the Steiner Tunnel Test method of the American Society for Testing Materials (ASTM E 84, Standard Test Method For Surface Burning Characteristics of Building Materials). This procedure is cataloged by Underwriters Laboratories, Inc. as UL 723.

Typical Flame Spread and Smoke Developed Properties

NEMA Type	**Wilsonart Product**	Unbonded	Bonded to Incombustible Cement Board	Bonded to Fire-Rated Particleboard
VGF	**604**	15/15	15/0	15/20
HGF	**605**	15/15	15/0	15/25
SGF	**607**	15/25	15/0	15/35
BKV	**264**	15/0	15/0	20/10
BKH	**266**	20/0	15/0	10/15

Note: Adhesive to attain Flame Spread and Smoke Developed figures for bonded laminates (above) is resorcinol. Fire-rated particleboard is Duraflake, with a UL rating of 25/25, or comparable material. The above values are CUL (Canadian Underwriters Lab) approved.

Model Code Designations used to determine flame spread classification

Flame Spread Classification (Maximum Rating)	International (IBC)	Life Safety (NFPA 101)
25	A	A
75	B	B
200	C	C

(Reference: Architectural Woodwork Quality Standard, 8th Edition, Version 1.0 – 2003)

All Model Codes regulate the generation of smoke by interior finish material. In all cases they specify a maximum smoke development rating of 450.

Codes and Certifications:

General Fire Code Compliance

Test data for code compliance is from the UL 723 Tunnel Test method. This procedure has been cataloged under the following designations:

American Society for Testing Materials	ASTM E 84
American National Standards Institute	ANSI No. 2.5
National Fire Protection Agency	NFPA No. 255
Underwriters Laboratories, Inc.	UL No. 723

This test data is the basis for fire codes written by various responsible groups, including:

BBC	Basic Building Code (Building Officials Conference of America. Used in Midwest and Northeast.)
NFPA	National Fire Protection Agency (Building Exits Code, Section #101.)
SSBC	Southern Standards Building Code (Southern Building Codes Congress. Used primarily in the South.)

Many local codes, especially in densely populated areas, have been patterned after these. Examples include the cities of Los Angeles and San Francisco and the Port Authority of New York. Approvals include:

New York City, Department of Buildings, Materials and Equipment Acceptance
(Types 264, 266, 604, 605 & 607) MEA 167-87M

General Standards
Fire-Rated Laminate conforms to ANSI/NEMA LD3-2005 for VGF, HGF and SGF (Types 604, 605 and 607, respectively).

The GREENGUARD Environmental Institute™ has awarded its GREENGUARD® Indoor Air Quality Certification to Wilsonart Laminate. All Wilsonart Laminate product types were tested under the stringent GREENGUARD Standards for low-emitting products. All GREENGUARD Indoor Air Quality Certified products ensure minimal impact on the indoor environment. For a copy of the certificate, visit www.greenguard.org.

Specific Product Standards
Fire-Rated Laminate meets the following federal codes:
Aircraft Interiors. U.S. Federal Test Method, Federal Aviation Administration, DOT, Part 25.853, Airworthiness Standards: Transport Category Airplane (Interior Finish). Fire-Rated Laminate Types 604, 605 and 607 comply with parts A and C.

Military/Ships. U.S. Military Standard MIL-P-17171E (SHIPS) Plastic Laminate and U.S. Military Standard 1623D (SHIPS), "Fire Performance Requirements and Approval Specifications for Interior Finished Materials and Furnishings - Naval Shipboard Use." Fire-Rated Laminate Types 605 and 607 comply with both of these standards.

Military/Ships

Fire-Rated Product Type	U.S.C.G. (46 CFR 164.012)	U.S.C.G. (IMO FTP Code)	Canadian Board of Steamship Inspection
Type 604	164.012/29/0	164.112/8/0	G1-162
Type 605	164.012/105/0	164.112/9/0	G1-166
Type 607	164.012/30/0	164.112/10/0	G1-163
Type 264	164.012/46/0	164.112/11/0	G1-161
Type 266	164.012/106/0	164.112/12/0	G1-165

Types 605 and 607 also appear on the U.S. Department of the Navy "Approved Habitability Materials List 9640, SER 05M1.11/1148," (Revision K, May 1996), Pages 3 and 4, paragraphs 1.5 and 2(b), for use on bulkhead sheathing, and on NAVSEA Drawing #804-5000991.

Mobile Homes
U.S. Federal Register August 9, 1984, Housing and Urban Development Mobile Home Construction and Safety Standard (24CFR), 3280.203. Fire-Rated Laminate Types 604, 605, 607, 264 and 266 comply.

Motor Vehicles/Interiors
U.S. Federal Motor Vehicle Safety Standard (FMVSS) 302, "Flammability of Interior Materials." Fire-Rated Laminate Types 604, 605 and 607 comply.

4. Installation: Fabrication and Assembly Recommendations

Wilsonart Laminate must be bonded to a substrate of reliable quality and appropriate fire rating, such as particleboard, incombustible cement board or plywood with one A face. Bond with adhesives, and follow the techniques recommended by the adhesive manufacturer. Permanent adhesives are recommended such as specialized PVAs, phenol/resorcinol, resorcinol, and epoxy. Contact cement, such as Wilsonart Adhesives, also may be used.

Take care to ensure an appropriate moisture balance between the laminate and the substrate prior to fabrication. The face and backing laminates and the substrate should be conditioned in the same environment for 48 hours before fabrication.

Recommended conditioning temperature is about 75°F (24° C). Laminates should be conditioned at 45% to 55% relative humidity.

To avoid stress cracking, do not use square-cut inside corners. All inside corners should have a minimum of 1/8" (3.18mm) radius, and all edges should be routed smooth.

Fabricating for Fire Rating Concerns
Flame Spread and Smoke Developed data for products fabricated with Wilsonart Fire-Rated Laminate vary with the choice of substrate and adhesive, as well as with pressing conditions. In general, these factors range from most to least fire-retardant, as shown below:

Substrate	**Adhesive**	**Pressing Conditions**
Incombustible	Resorcinol	Hot pressed/cold
Fire-Rated Particleboard	Phenol/Resorcinol	Cold pressed/long
Conventional Particleboard*	Casein	Cold pressed/short
Conventional Plywood	Contact	Nip rolled

**45 lb. cu. ft. density, industrial grade*

Methods
Assembled pieces should meet the specification of KCMA (Kitchen Cabinetmakers Manufacturers Association) ANSI-161.2-1998 (revised) and “Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program” guidelines of the Architectural Woodwork Institute where applicable. Drill oversized holes for screws or bolts. Screws or bolts should be slightly countersunk into the face side of a laminate-clad substrate.

5. Warranty

Wilsonart International warrants that, under normal use and service, the material and workmanship of its laminate shall conform to the standards set forth on the applicable technical data sheets for a period of one (1) year from the date of sale to the first consumer purchaser. Dealers and distributors are provided with the technical data sheets which contain specific standards of performance for the products.

In the event that a laminate product does not perform as warranted, the first consumer purchaser's sole remedy shall be limited to repair or replacement of all or any part of the product which is defective, at the manufacturer's sole discretion.

This warranty applies only to product:
1. In its original installation; and
2. Purchased by the first consumer purchaser.

This warranty is not transferable, and expires upon resale or transfer by the first consumer purchaser. This warranty shall not apply to defects or damage arising for any of the following:

1. Accidents, abuse or misuse;
2. Exposure to extreme temperature;
3. Improper fabrication or installation; or
4. Improper maintenance.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE MADE, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. UNDER NO CIRCUMSTANCES SHALL WILSONART INTERNATIONAL, INC. BE LIABLE FOR ANY LOSS OR DAMAGE ARISING FROM THE PURCHASE, USE OR INABILITY TO USE THIS PRODUCT, OR FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES. NO FABRICATOR, INSTALLER, DEALER, AGENT OR EMPLOYEE OF

WILSONART INTERNATIONAL, INC. HAS THE AUTHORITY TO MODIFY THE OBLIGATIONS OR LIMITATIONS OF THIS WARRANTY.

This warranty gives you specific legal rights, and you also may have other rights that vary from state to state; therefore, some of the limitations stated above may not apply to you. It is to your benefit to save your documentation upon purchase of a product.

Maintenance*

The decorative surface may be cleaned with warm water and mild soaps, such as those used for hands or dishes. Do not use cleansers that contain abrasives, acids or alkalis; they will damage the decorative surface. Remove stubborn stains with a 1 1/2-minute exposure to hypochlorite bleach such as Clorox®, followed by a clean water rinse.

We recommend that you **not** allow any of the following reagents to **remain** in contact with the decorative surface:

1. Hypochlorite bleach, except as described above
2. Hydrogen peroxide solution
3. Mineral acids, hydrochloric acid such as Lime-A-Way™, sulfuric or nitric acid
4. Caustic solutions containing greater than 2% lye, such as Drano®
5. Sodium bisulfate, such as Sani-Flush®
6. Potassium permanganate
7. Berry juices
8. Silver nitrate, in 1% concentration
9. Gentian violet
10. Mild silver protein, such as 20% argyrol
11. Bluing
12. Fabric dye, such as Tintex® or Rit®
13. Alcohol containing 1% iodine in solution

If you require a laminate that can withstand these and other chemicals, please refer to the tech data for Wilsonart® Chemsurf® Chemical-Resistant Laminates.

*Not applicable for Phenolic Laminate Backing Sheets.

Free copies of the “Care and Maintenance Guide,” which covers all Wilsonart products, are available. The guide can be accessed at http://www.wilsonartlaminate.com or by calling our hotline at: 800-433-3222. It can be used for your own information, for project manuals, and for provision to clients and contractors involved with interior construction and finishing.

6. Technical Services

For samples, literature, questions or technical assistance, please contact our toll-free Hotline at (800) 433-3222, Monday through Friday, 7 am –7 pm, CST.

Specification Form:

Surface shall be Wilsonart Laminate,
produced by Wilsonart International,
Temple, Texas 76503-6110.

Type: See Fire-Rated specific types under Product Description/Product Definition

Surface
- Color Number: _____
- Color Name: _____

Finish
- Number: _____
- Name: _____

Edge Trim
- Color Number: _____
- Color Name: _____

Adhesive
- Name: _____
- Grade/Type: _____
- Brand: Wilsonart Adhesive

Material shall equal or exceed performance standards set by the American National Standards Institute/National Electrical Manufacturers Association (ANSI/NEMA) LD3-2005 for high-pressure laminate. Fabrication shall comply with "Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program" guidelines of the Architectural Woodwork Institute.

Fire Rated TD (TD0611)
Revised: September 2010

LED Linear GmbH

Pascalstr. 9
47506 Neukirchen-Vluyn
Germany

Intertek confirms the status of ETL approval as follows:

Manufacturer:

LED Linear GmbH
Pascalstr. 9
47506 Neukirchen-Vluyn
Germany

Product / Models:

VarioLED with extensions as follows:
Flex APOLLO W 827, Flex APOLLO W 835, Flex APOLLO W 863, Flex ATON W 829, Flex ATON W 935, Flex ATON W 841, Flex ATON W 850, Flex B, Flex G, Flex R, Flex RGB L, Flex RGB S, Flex SOL W 863/827, Flex W 827, Flex W 835, Flex W 863/827, Flex W 863, Flex DONAR W 827, Flex DONAR W 835, Flex DONAR W 863, Flex DONAR W 935, Flex SOL W 827, Flex SOL W 835, Flex SOL W 863, Flex SOL W L827, Flex SOL W L835, Flex SOL W L863, Flex W SV 863

Standards:

UL 2108 - Issue:2004/02/27 Ed:1 Rev:2010/06/30 UL Standard for Safety Low Voltage Lighting Systems
UL 8750 - Issued:2009/11/18 Ed:1 UL Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products

Products / models have passed all tests related to above standards

Product / Models:

Flex R IP67, Flex G IP67, Flex B IP67, Flex Y IP67, Flex W SV 863 IP67, Flex W 827 IP67, Flex W 835 IP67, Flex W 863 IP67, Flex RGB S IP67, VarioLED Flex Venus

Standards:

UL 2108 - Issue:2004/02/27 Ed:1 Rev:2010/06/30 UL Standard for Safety Low Voltage Lighting Systems
UL 8750 - Issued:2009/11/18 Ed:1 UL Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products

Products / models have passed all tests related to above standards

Product / Models:

Product familiy VarioLED Flex High Flux IP 67

Models VarioLED with extensions as follows:
SOL W 863 IP67, SOL W 835 IP67, SOL W 827 IP67, DONAR W 863 IP67, DONAR W 835 IP67, DONAR W 827 IP67, DONAR W 935 IP67, APOLLO W 863 IP67, APOLLO W 835 IP67, APOLLO W 827 IP67, APOLLO W 935 IP67, ATON W 850 IP67, ATON W 841 IP67, ATON W 829 IP67

VarioLED Flex IQ White IP67
VarioLED SOL W 863/827 IP67

Product family XooLux with extensions as follows:
SOL 863/1050, SOL 863/500, SOL 863/200, SOL 835/1050, SOL 835/500, SOL 835/200, SOL 827/1050, SOL 827/500, SOL 827/200, DONAR 863/1050, DONAR 863/500, DONAR 863/200, DONAR 835/1050, DONAR 835/500, DONAR 835/200, DONAR 827/1050, DONAR 827/500, DONAR 827/200, DONAR 935/1050, DONAR 935/500, DONAR 935/200, APOLLO 863/1050, APOLLO 863/500, APOLLO 863/200, APOLLO 835/1050, APOLLO 835/500, APOLLO 835/200, APOLLO 827/1050, APOLLO 835/500, APOLLO 835/200, RGB 1050, RGB 500, RGB 200

Standards:

UL 2108 - Issue:2004/02/27 Ed:1 Rev:2010/06/30 UL Standard for Safety Low Voltage Lighting Systems
UL 8750 - Issued:2009/11/18 Ed:1 UL Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products

Products / models have passed all tests related to above standards

Administration of documents and factory inspection is planned for August/September 2011.

Wiesbaden / July 29, 2011
Location / Date

[redacted]
Signature