PART 1 — GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the contract, including general and supplementary conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following waterproof vertical grade panel and solid plastic trim product types:
1. Commercial Wall Panels [full height and wainscoting].
2. Vertical Surfacing for Fixtures and Displays.
3. Wall Panel Installation Systems and Panel Moldings.
4. Solid Polymer Architectural Moldings.
5. Adhesives Specially Formulated for Proprietary Polymer Adhesion.
6. Sealants Specially Formulated for Proprietary Polymer Adhesion.

B. Related Sections include the following:
1. Parkland™ NRP-FR LEED applicability: see section 1.4 E. LEED submittals. Manufacturer's product content statement available upon request.
2. Division 6 Section "Solid Surface Fabrications".

1.3 DEFINITION

A. Parkland NRP-FR panels are defined as waterproof PVC, nonporous sheet maintaining the same composition throughout the part with a composition of densified polymer alloy, mineral reinforcement, pigment and high-performance additives, meeting applicable building materials standards; NEMA, UL, ANSI, ASTM, having minimum physical, performance, and environmental properties specified.

B. Appearance: Colored plastic sheet.
1. Parkland NRP-FR Panels, PVC Non-Fiberglass Reinforced Plastic [sheet].

1.4 SUBMITTALS

A. Product data:
1. NRP-FR Panels

B. Installer instruction requirements:
1. Show location of each item, dimensioned plans and elevations, large-scale details, attachment devices, seam locations, and other components prior to commencement of work.

    a. Show locations and sizes of cutouts, and holes for fixtures, and other items installed in solid wall panels.
    b. Show location of seams and panel moldings.

C. Samples:
1. For each type of product specified.

    a. Manufacturer will supply minimum 4-inch by 4-inch sample in specified finish.
    b. Cut sample and seam together for representation of caulk-less joint.
        i. Seam with divider molding, ii. Seam with silicone sealant, iii. Caulkless waterproof seam
    c. Indicate full range of color and pattern variation.
2. Approved samples will be retained by manufacturer as a standard for work.

D. Product data:
1. Product description, fabrication information and compliance with specified performance requirements to be agreed upon prior to receipt of order.

E. LEED submittals:
1. MR Credit 4.1 and 4.2 Materials and Resources:

    a. NRP-FR panels contain no recycled waste products.
    b. Panel weights for .060" thickness is .344 Lb/ SF.
2. MR Credit 5.1 and 5.2 Regional Materials:

    a. Product origin: Middlebury, Indiana.
3. IEQ Credit 4.1 Low Emitting Materials: Adhesives and Sealants.

    a. Parkland NRP-FR panels contain no detectable VOC materials.
    b. Manufacturer's specified adhesives are water-based, low-VOC content. MSDS sheet available upon request.

1.4 SUBMITTALS (continued)

F. Product certificates:

1. Signed manufacturer's statement of compliance available upon request with each purchase order.

G. Fabricator/installer qualifications:

1. Installers receive corporate training and field experience. 1 Training Document/DVD ships with each order upon request.

H. Other Product data:

1. Use and Care Guide available upon request.
2. Installation & Fabrication Guide available upon request.
3. Product Overview Guide available upon request.
4. MSDS
5. See suggested project specification at the end of this document.

1.5 QUALITY ASSURANCE QUALIFICATIONS

A. Installer qualifications:

1. Work of this section shall be by a trained installer, receipt of training video may be certified in writing by the manufacturer.

B. Applicable standards:

1. Standards of the following, as referenced herein:
   a. American National Standards Institute (ANSI)
   b. American Society for Testing and Materials (ASTM)
   c. International Assoc. of Plumbing and Maintenance Officials (I.A.P.M.O.)
   d. Underwriters Laboratories (UL)
   e. National Electrical Manufacturers Association (NEMA)
2. Fire test response characteristics:
   a. Provide with the following Class A (Class I), surface burning characteristics as determined by testing identical products per UL 723 (ASTM E84) or another testing and inspecting agency acceptable to authorities having jurisdiction:
      1) Flame Spread Index: 25 or less (Class I).   2) Smoke Developed Index: 450 or less (Class I).

1.6 DELIVERY, STORAGE AND HANDLING- Manufacturer will:

A. Deliver no components to project site until areas are ready for installation.
B. Store components indoors prior to installation.
C. Handle materials to prevent damage to finished surfaces.

1.7 WARRANTY

A. Provide manufacturer's warranty against defects in materials.

1. Warranty shall provide material to repair or replace defective materials.
2. Damage caused by physical or chemical abuse or damage from excessive heat or abrasion will not be warranted.
3. Warranty shall be non-transferable to subsequent owners.

B. Manufacturer's Warranty Period:

1. Five years from date of purchase.

1.8 MAINTENANCE

A. Routine and regular cleaning with soapy water.
B. Removal of stains with common household cleansers, and a small amount of bleach in a rag for very stubborn stains.
C. See NRP® Panels Use and Care Guide.

PART 2 — PRODUCTS

2.1 MANUFACTURER

A. Parkland Plastics™
104 Yoder Drive
Middlebury, INDIANA
46540 USA
1-800-835-4110

2.2 MATERIAL PROPERTIES

A. Description:

    1. Parkland™ NRP-FR panels are defined as waterproof, nonporous sheet maintaining the same composition throughout the part with a composition of densified polymer alloy, mineral reinforcement, pigment and high performance additives, meeting applicable building materials standards; NEMA, UL, ANSI, ASTM, having minimum physical, performance, and environmental properties specified.

B. Thickness:

    1. Parkland NRP-FR 0.090" [1/8"] thick.

C. Edge treatment:

    1. Standard sheets, no edge treatment.

D. Sheet size:

    1. Parkland NRP-FR: 4' wide, with available length [height] of: 8' and 10'.

E.. Performance characteristics:

ASTM E-84	Flame Spread	≤25
ASTM E-84	Smoke Developed Index	≤450
ASTM D-1308	Stain Resistance	No Effect*
ASTM D-790	Modulus of Rupture (psi)	4,810 psi
ASTM D-256-06a	Notched IZOD Impact	0.64 ft-lb/in at 73 deg F
ASTM D-570	Water Absorption	0.33%
ASTM D-790	Modulus of Elasticity (psi)	202,333 psi
ASTM D-2240	Hardness	57 Shore D
Weight	Pounds per square foot	0.344 lb./sq. ft.
ASTM D-3273	Mold/Mildew Growth	No Growth
ASTM G-21	Fungus Growth	No Growth
ASTM D-4060	Abrasion Resistance	105 wear index**
ASTM D-635	Burn Rate	0 sec, 0 mm
ASTM D-792	Density	0.881 gm/cc
EPA-826-	VOC Content	None Detected
ASTM D-696	Coefficient of Linear Thermal Expansion	3.55 x 10 -5 in/in/deg F

*When cleaned with Parkland™ recommended cleaning agents, see Use and Care Guide for details.   **Textured Surface

2.3 Government Approvals

  A. USDA compliant
  B. State of California Proposition 65 Compliant

2.4 Institutional Affiliations and Approvals

  A. National Association of Homebuilders (NAHB)- Complete stain testing results available (ASTM D-1308).
  B. Member- U.S. Green Building Council (USGBC).
  C. ASTM E-84 flame spread and smoke development results available.

2.5 Material Qualifications

  A. NRP-FR scrap can be recycled as grade #3 material.
  B. Does not support the growth of mold or mildew.
  C. All products 100% fiberglass-free, with no detectable VOC's.
  D. Cleanability- Parkland™ NRP-FR product guaranteed safe to be cleaned with:

- Soapy Water
- Mild Detergent Solutions
- Formula 409® All Purpose Cleaner
- Clorox® Clean-Up® Cleaner with Bleach
- Fantastik® Oxypower® Multi-Purpose Cleaner
- Clorox Green Works® Natural Bathroom Cleaner*
- Windex® Multi-Surface Cleaner with Vinegar
- Clorox® Anywhere® Hard Surface™ Daily Sanitizing Spray
- Kaboom® with OxiClean Stain Fighter
- Lysol® All Purpose Cleaner
- Bon Ami® All Purpose Cleaner

2.6 Accessories, Adhesives, and Sealant

  A. Panel-to-panel moldings, corner moldings, end cap moldings.
  B. Panel adhesives [All 100% VOC-free]:
  　　1. Spray-Lock™ spray aerosol non-VOC adhesive, UL listed (22 oz can).
  　　2. Parkland™ Panel Adhesive (trowel-grade, 2 & 5 gallon tub).
  　　3. Seal Bond® # 105 (10 oz. tube)
  C. Sealant: Parkland EcoTUFF™ Advanced Silicone Sealant (10.1 oz tube).
  　　1. Colors: White, Almond, Grey, Bronze, Black.

2.7 Product Availability: Manufacturer's standard available finishes & colors

NRP-FR Panels .060" (1/8")

Finish	White	Almond	Tan	Grey	Black	Décor	Available Moldings (Full line)	Fire Rating	Available Panel Size	Packaging & Weight
Cracked-Ice	■	■	❏	❏	❏	❏	■ White ■ Almond ❏ Tan ❏ Grey ❏ Black	Class-I	4' x 8' 4' x 10'	4' x 8' 32 sq. ft. / 20# per pc. 4' x 10' 40 sq. ft. /25# per pc.
Matte*	■	■	❏	❏	❏	❏				

■ Stocked ❏ Special Order   *Matte finish is fine pattern on Décor-Series products

PART 3 — EXECUTION [INSTALLATION PROCESS]

3.1 EXAMINATION

A. Upon request, manufacturer will assist customer to examine substrates and conditions, with installer present for compliance with requirements for installation tolerances, and other conditions affecting performance of work.

B. Installers to proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION: Installer shall:

A. Install components plumb, level and rigid, scribed to adjacent finishes, leaving minimum 1/16" gaps at all surfaces and walls, fixtures and openings in accordance with approved specifications and product data.

    1. Form field joints using manufacturer's recommended accessories, and seal joints with Parkland™ EcoTUFF™ Advanced Silicone Sealant if specified.

    2. Cut and finish component edges to a smooth appearance and feel with ordinary tools and fine sandpaper.

    3. Carefully dress joints smooth, remove surface residue and clean entire surface.

3.3 REPAIR

A. Repair to correct installed fixtures to specified condition or to replace damaged work, which cannot be repaired to architect's satisfaction.

    1. Parkland NRP-FR is repairable in some circumstances. See Use and Care Guide for more information.

3.4 CLEANING AND PROTECTION

A. Keep components clean during installation, or clean and cover with protective covering.

B. Remove excess adhesives, sealants and other stains.

C. See section 2.5 for list of approved cleaning agents.

3.5 SCHEDULE

A. Wall panel Installation:

    1. NRP-FR wall panels shall be installed in accordance with all guidelines and recommendations in ***Parkland NRP & FRP Installation Guide*** [available upon request].

    2. Panel moldings: Parkland solid polymer waterproof panel moldings where moldings as specified.

        a. Divider molding [1-piece], b. Corner molding, c. Cap molding, d. Divider molding [deluxe 2-piece]

B. Wall panel seams:

    1. Use desired divider molding between panels or

    2. Space all panels with 1/16" minimum spacing, and fit seams neatly and fill gaps with color-coordinated EcoTUFF™ Sealant.

C. Sealant

    1. For water-resistant installation and for pressure-wash areas use recommended sealant at all panel seams, edges, and molding locations.

    2. Recommended sealant: EcoTUFF silicone sealant where sealant is specified. EcoTUFF is specially formulated for recycled plastics adhesion.

    3. Adhesives: Parkland NRP-FR sheets are made from 100% fiberglass-free materials with no detectable VOC's. The less chemically reactive nature of these materials necessitates the use of specially formulated adhesives. Parkland strongly recommends the exclusive use of the following adhesives:

        a. Parkland™ Panel Adhesive (trowel application, 2 & 5 gallon tubs).

        b. Spray-Lock™ Aerosol adhesive (spray application, 22 oz. can).

        c. Seal Bond® # 105 (tube application, 10 oz. tube)

D. Handrails & other accessories: Contact Parkland for more information on handrail and other wall protection systems.

ARCHITECT'S SPECIFICATION:

Wall Panel Specification:

Walls shall be covered with 100% waterproof mineral-reinforced polymer alloy panels of 1/8" [.060"] nominal thickness. Panels shall feature protective surface texture as specified below. All wall panel materials are made of PVC, to be 100% fiberglass-free and have no detectable VOC's.

Wall panel adhesive shall be 100% VOC-free. Adhesive may be trowel grade, aerosol-type, or tube application. Any aerosol spray propellant shall be of medical grade only.

All joints and seams shall feature minimum gaps for expansion of 1/16", and use manufacturer's specified accessory moldings for all seams, corners, and edges.

Base moldings and chair rails shall be of solid mineral-filled recycled polymer construction of minimum 1/4" thickness and height as selected below.

Sealant shall be specially formulated for adhesion to recycled plastic sheet and provided by the approved panel manufacturer.

Approved manufacturer:
Parkland Plastics™
104 Yoder Drive
Middlebury, INDIANA 46540

Wall panel color to be: _____

Wall panel texture to be:
□ Cracked Ice Finish   □ Matte Finish

□ 4" solid polymer base molding   □ 6" solid polymer base molding

Sealant to be EcoTUFF™ silicone, color to be: _____

For more information call: 800.835.4110 • or Visit: www.parklandplastics.com

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