

ARCHITECT AND MEP ENGINEERING NOTICE REPORT

CSI 3-Part Specification Format

FRPS Fire-Rated Composite Enclosures for Recessed Fixtures

Applicable to Troffer/LED Lay-In Light Panels, Slimline/Wafer/Puck LED Fixtures, Traditional Recessed Downlights, Speakers, and Low-Voltage Ceiling Devices

Manufacturer	FRPS - Fire Rated Product Specialties Corp.
Product Series	FR, FN-R, and FN-R-T Series Composite Fire-Rated Enclosures
Primary Use	Protection of recessed fixtures in fire-resistance-rated floor/ceiling and roof/ceiling assemblies
Contact	john@frpsonline.com 612-294-1450
Specifier Note	Edit bracketed or project-specific language before issuing as part of a project manual.

Architect / MEP Notice

This notice informs the Architectural, MEP Engineering, Electrical, Ceiling, and Firestopping teams that recessed fixtures installed in fire-rated horizontal assemblies must be protected with a tested fire-rated enclosure system where required to preserve the hourly fire-resistance rating of the assembly.

- FRPS composite fire-rated enclosures are intended for installation over troffer/LED lay-in light panels in T-grid suspended ceiling systems.
- FRPS composite fire-rated enclosures are intended for traditional IC and Non-IC recessed downlight fixtures, slimline/wafer/puck LED fixtures, speakers, and similar low-voltage ceiling devices were permitted by the listing and project conditions.
- FRPS enclosures ship flat and fold on site into a rigid five-sided enclosure using factory-applied peel-and-stick forming tabs.
- No field-applied sealants, drilling, or fasteners are typically required for T-grid lay-in applications unless required by the tested assembly, manufacturer instructions, or project conditions. Traditional can-style enclosures may require mechanical fastening to joists or trusses.

Project Documentation Language

All troffer/LED lay-in panel fixtures, recessed downlights, slimline/wafer/puck LED fixtures, speakers, and similar recessed ceiling devices installed in fire-rated horizontal assemblies must be protected using FRPS composite fire-rated enclosures tested to ASTM E119 / UL 263 and ASTM E84, or other applicable listed assembly requirements. Enclosures are non-combustible composite assemblies designed to preserve the hourly fire-resistance rating of the rated floor/ceiling or roof/ceiling assembly.

FRPS Composite Enclosure Product Schedule

Application	Typical Size / Configuration	Height Options	Notes
Troffer / LED Lay-In Light Panel	24 in x 48 in, 24 in x 24 in, 12 in x 48 in	3-1/4 in or 5 in	Install over fixture housing within T-grid cavity.
Recessed Downlight / Speaker	8 in x 20.25 in; 14.25 in x 20.25 in; 12 in x 12 in,	3.25 in, 5 in, or 6.5 in as applicable	Coordinate size with fixture, driver, trim, wiring, and heat-generating components.
Custom Conditions	Custom sizes available upon request	As required	Verify listing, rated assembly, and manufacturer approval before use.

DIVISION 07 84 00 - FIRESTOPPING

FRPS FIRE-RATED COMPOSITE ENCLOSURES FOR RECESSED FIXTURES

PART 1 - GENERAL

1.1 SUMMARY

- A.** Section Includes: Factory-fabricated composite fire-rated enclosures designed to maintain the hourly fire-resistance rating of floor/ceiling and roof/ceiling assemblies penetrated or interrupted by recessed fixtures and related ceiling devices.
1. Troffer and LED lay-in light panels.
 2. Slimline, wafer, puck, and other can less LED downlights.
 3. Traditional IC and Non-IC recessed downlight.
 4. In-ceiling speakers and low-voltage ceiling devices requiring fire-resistance continuity.
- B.** Related Sections:
1. Section 07 84 13 - Penetration Firestopping.
 2. Section 09 51 00 - Acoustical Ceilings.
 3. Section 26 05 33 - Raceway and Boxes for Electrical Systems.
 4. Section 26 50 00 - Lighting.

1.2 REFERENCES

- A.** ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- B.** ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- C.** ASTM E814 / UL 1479 - Fire Tests of Penetration Firestop Systems, where applicable to project conditions.
- D.** ASTM C518 - Thermal Transmission Properties.
- E.** ASTM G21 - Determining Resistance of Synthetic Polymeric Materials to Fungi.
- F.** ASTM C423 - Sound Absorption and Sound Attenuation Testing, where documented by manufacturer.
- G.** UL 263 - Fire Tests of Building Construction and Materials.
- H.** CAN/ULC-S101 and CAN/ULC-S102, where applicable and documented by manufacturer.
- I.** IBC Chapter 7 - Fire and Smoke Protection Features.

1.3 ADMINISTRATIVE REQUIREMENTS

- A.** Coordination: Coordinate fire-rated enclosure locations with ceiling grid layout, fixture schedules, lighting controls, drivers, wiring, ceiling tile installation, and rated assembly requirements.
- B.** Preinstallation Review: Before installation, review fixture dimensions, enclosure sizes, rated assembly type, and manufacturer installation requirements with the Architect, MEP Engineer, ceiling installer, electrical contractor, and firestopping inspector where applicable.

1.4 SUBMITTALS

- A.** Product Data: Submit manufacturer technical data, product dimensions, available sizes, installation instructions, and limitations of use.
- B.** Fire-Test Documentation: Submit documentation demonstrating compliance with ASTM E119 / UL 263 and ASTM E84, and applicable manufacturer listing documentation for the rated assembly.
- Shop Drawings: Indicate enclosure size, configuration, fixture type, ceiling assembly, T-grid cavity location, and coordination with wiring, drivers, transformers, and other components.
- D.** Certificates: Submit compliance documentation for RoHS, California Proposition 65, non-hazardous material certification, and other environmental certifications stated by manufacturer.
- E.** Closeout Submittals: Provide installation photos, as-built fixture/enclosure locations, warranty documents, and firestopping closeout documentation required by the Authority Having Jurisdiction (AHJ).

1.5 QUALITY ASSURANCE

- A.** Manufacturer Qualifications: Manufacturer shall have experience producing fire-rated enclosure systems for recessed fixtures and ceiling devices.

- B. Installer Qualifications:** Installer shall be experienced with installation of recessed fixtures, T-grid ceiling systems, and fire-rated assembly requirements.
- C. Regulatory Requirements:** Provide products compatible with the project fire-resistance-rated floor/ceiling or roof/ceiling assemblies and acceptable to AHJ.
- D. Listed Assembly Coordination:** Enclosures shall be compatible with rated assemblies identified in manufacturer documentation, including applicable UL L-Series, P-Series, R-Series, G-Series, D-Series, and other assemblies as documented by manufacturers.

1.6 DELIVERY, STORAGE, AND HANDLING

- A.** Deliver enclosures flat-packed in manufacturer protective packaging.
- B.** Store indoors on level surfaces. Protect from moisture, deformation, excessive heat, and physical damage.
- C.** Do not install damaged, punctured, torn, wet, or deformed enclosures.

1.7 WARRANTY

- A.** Provide manufacturers with a standard one-year warranty covering defects in materials and fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Basis of Design:** FRPS - Fire Rated Product Specialties Corp.; FR, FN-R, and FN-R-T Series Composite Fire-Rated Enclosures; www.frpsonline.com; info@frpsonline.com; 612-436-0606.
- B. Substitutions:** Submit in accordance with Division 01. Proposed substitutions shall provide equivalent listed fire-resistance performance, surface-burning performance, material performance, installation method, and compatibility with the project rated assemblies. Field-fabricated enclosures or untested alternatives are not acceptable.

2.2 MATERIALS

- A. Composite Fire-Rated Enclosure Panels:** Non-combustible, non-corrosive, inorganic composite panels; lightweight; chemically stable; odorless; fungus/mildew resistant; antimicrobial-preventive; and RoHS compliant.
- B. Assembly System:** Factory-applied peel-and-stick forming tabs allowing flat-packed panels to be folded into a rigid five-sided enclosure at the project site.
- C. Accessories:** Provide clips, fasteners, supports, or other accessories only where required by manufacturer instructions, fixture type, or the tested/listed assembly.

2.3 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance Performance:** Enclosures shall be tested for maintaining the hourly fire-resistance rating of the rated floor/ceiling or roof/ceiling assembly when installed in accordance with manufacturer instructions and applicable listing requirements.
- B. Surface-Burning Characteristics:** Provide products tested to ASTM E84 for flame spread and smoke development characteristics.
- C. Thermal Performance:** Provide products tested to ASTM C518 were indicated in manufacturer documentation.
- D. Fungal Resistance:** Provide products tested to ASTM G21 for fungus, mold, or mildew resistance were indicated in manufacturer documentation.
- E. Acoustic Performance:** Provide products tested to ASTM C423 for sound and speech attenuation that were indicated in manufacturer documentation.
- F. Environmental Compliance:** Products shall be RoHS compliant, chemically stable, odorless, and documented as non-hazardous by the manufacturer.
- G. Country of Origin:** Products shall be 100 percent made in the USA where specified by Owner or project requirements.

2.4 PRODUCT OPTIONS

- A. Troffer / LED Lay-In Light Panel Enclosures:** Provide sizes including 24 inches by 48 inches, 24 inches by 24 inches, and 12 inches by 48 inches with 3-1/4 inches or 5 inch heights, as required for the fixture and ceiling cavity.
- B. Recessed Downlight and Speaker Enclosures:** Provide sizes including 8 inches by 20.25 inches by 3.25 inches or 5 inches, 14.25 inches by 20.25 inches by 6.5 inches, and 12 inches by 12 inches by 6.5 inches, as required for the fixture and ceiling cavity.

- C. Custom Sizes: Custom sizes may be provided where available from manufacturers and where confirmed compatible with the rated assembly and fixture condition.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify ceiling grid, joists, trusses, fire-rated assembly construction, and fixture rough-in conditions are ready for enclosure installation.
- B. Confirm enclosure size coordinates with fixture housing, drivers, transformers, wiring, trim, heat-generating components, and ceiling cavity depth.
- C. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install FRPS fire-rated composite enclosures in accordance with manufacturer printed installation instructions and applicable listing requirements.
 - 1. Open flat-packed panels and fold into a rigid five-sided enclosure using factory-applied adhesive forming tabs.
 - 2. Place enclosure over recessed fixture housing within the ceiling cavity or T-grid cavity as applicable.
 - 3. For traditional downlight housing, mechanically fasten enclosure to joists or trusses where required by the manufacturer or project condition.
 - 4. Do not cut, puncture, modify, or alter enclosures unless specifically allowed by manufacturer instructions and listing requirements.
 - 5. Maintain clearance around drivers, wiring, transformers, and heat-generating components as required by fixture manufacturer and FRPS instructions.
- B. Coordinate installation with ceiling suspension system, lighting installation, electrical rough-in, mechanical systems above ceiling, and firestopping work.

3.3 FIELD QUALITY CONTROL

- A. AHJ, special inspector, or third-party firestop inspector may require verification that enclosure installation matches the tested/listed assembly configuration.
- B. Replace damaged, modified, improperly sized, or improperly installed enclosures immediately.
- C. Provide installation photographs and compliance documentation for closeout where required.

3.4 CLEANING AND PROTECTION

- A. Remove debris from ceiling cavity after installation.
- B. Protect completed installations from damage until project completion and acceptance.
- C. Do not use installed enclosures to support wiring, conduit, fixtures, equipment, storage loads, or other materials unless permitted by manufacturer instructions.

SCROLL DOWN TO VIEW CSI DIVISION 26 DOCUMENTATION

SECTION 26 05 33 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

FRPS FIRE-RATED ENCLOSURES FOR RECESSED LUMINAIRES AND ELECTRICAL DEVICES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Electrical trade requirements for coordinating and installing fire-rated enclosure protection for recessed electrical equipment located in fire-resistance-rated floor/ceiling and roof/ceiling assemblies.
 - 1. LED lay-in troffers and panels.
 - 2. Slimline, wafer, puck, and can less LED downlights.
 - 3. Traditional IC and Non-IC recessed luminaires.
 - 4. In-ceiling speakers and low-voltage ceiling devices require rated enclosure protection.
- B. This Section coordinates with Section 07 84 00 - Firestopping for fire-resistance continuity requirements.

1.2 RELATED SECTIONS

- A. 07 84 00 - Firestopping.
- B. 09 51 00 - Acoustical Ceilings.
- C. 26 05 00 - Common Work Results for Electrical.
- D. 26 50 00 - Lighting.

1.3 REFERENCES

- A. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- B. ASTM E84 - Surface Burning Characteristics of Building Materials.
- C. ASTM E814 / UL 1479 - Fire Tests of Penetration Firestop Systems, where applicable.
- D. ASTM C518 - Thermal Transmission Properties.
- E. ASTM G21 - Fungal, mold, and mildew resistance testing.
- F. ASTM C423 - Sound absorption and sound attenuation testing, where documented by manufacturer.
- G. UL 263 - Fire Tests of Building Construction and Materials.
- H. CAN/ULC-S101 and CAN/ULC-S102, were applicable and documented by manufacturer.

1.4 SUBMITTALS

- A. Product Data: Submit product data for FRPS composite fire-rated enclosures, including sizes, heights, fixture compatibility, material characteristics, and installation instructions.
- B. Shop Drawings: Indicate fixture type, enclosure dimensions, ceiling cavity clearances, T-grid coordination, driver and wiring locations, and required access.
- C. Certificates: Submit fire-test compliance and environmental compliance documentation, including RoHS, Proposition 65, and non-hazardous material documentation where applicable.
- D. Closeout Submittals: Submit O&M data, warranty documentation, installation photos, and as-built locations of protected recessed fixtures.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Electrical installers shall be experienced with recessed fixture installation in fire-rated ceiling assemblies and shall coordinate with the firestopping requirements of Division 07.
- B. Regulatory Requirements: Comply with applicable code requirements for penetration and openings in fire-resistance-rated construction. Coordinate with Architect, MEP Engineer, and AHJ.
- C. Fixture Coordination: Verify that fixture type, heat rating, driver location, and clearances are compatible with the selected enclosure and the fixture manufacturer requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products flat-packed in manufacturer protective packaging.
- B. Store materials dry, flat, and protected from deformation, moisture, and physical damage.

1.7 WARRANTY

- A. Provide manufacturers with a standard one-year warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Basis of Design: FRPS - Fire Rated Product Specialties Corp.; FR, FN-R, and FN-R-T Series Composite Fire-Rated Enclosures; www.frpsonline.com; info@frpsonline.com; 612-436-0606.

2.2 MATERIALS

- A. Composite Fire-Rated Enclosure Panels: Non-combustible, inorganic composite panels; non-corrosive; fungus/mildew resistant; antimicrobial-preventive; chemically stable; odorless; RoHS compliant; and ultra-lightweight.
- B. Assembly System: Factory-installed peel-and-stick tabs for field folding into rigid five-sided enclosure configuration.
- C. Sealants and Field Modifications: Field-applied sealants, drilling, and fasteners are not required for typical T-grid lay-in applications unless specifically required by manufacturer instructions, fixture type, or tested/listed assembly.

2.3 PERFORMANCE REQUIREMENTS

- A. Fire-Resistance: ASTM E119 / UL 263 tested for use in fire-resistance-rated horizontal assemblies. CAN/ULC-S101 and CAN/ULC-S102 listed where applicable and documented by manufacturers.
- B. Surface Burning: ASTM E84 tested flame spread and smoke development characteristics.
- C. Environmental: RoHS compliant, Proposition 65 compliant were documented, odorless, chemically stable, and non-hazardous as documented by manufacturer.
- D. Thermal Performance: ASTM C518 tested were documented by manufacturer.
- E. Acoustic Performance: ASTM C423 tested for sound and speech attenuation were documented by manufacturer.
- F. Fungal Resistance: ASTM G21 tested fungal, mold, and mildew resistance and antimicrobial-preventive characteristics where documented by manufacturer.

2.4 PRODUCT OPTIONS

- A. Troffer / LED Lay-In Light Panel Enclosures: 24 inches by 48 inches, 24 inches by 24 inches, and 12 inches by 48 inches; 3-1/4 inch or 5-inch heights as required.
- B. Recessed Downlight / Speaker Enclosures: 8 inches by 20.25 inches by 3.25 inches or 5 inches; 14.25 inches by 20.25 inches by 6.5 inches; and 12 inches by 12 inches by 6.5 inches as required.
- C. Custom Sizes: Custom sizes available upon request; verify listing, rated assembly compatibility, fixture clearances, and AHJ acceptance before use.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify rated ceiling assembly, ceiling grid, fixture rough-in, wiring, drivers, conduit, and clearances before installation.
- B. Confirm selected enclosure fits the fixture housing and does not conflict with electrical components, ceiling suspension system, structure, or adjacent work.

3.2 INSTALLATION

- A. Install FRPS fire-rated composite enclosures in accordance with manufacturer printed instructions.
 1. Fold flat-packed enclosure into five-sided box configuration using factory-applied forming tabs.
 2. Install enclosure over recessed fixture housing in the same T-grid cavity or rated ceiling cavity as the fixture.
 3. Mechanically fastened to joists or trusses for traditional downlight housings where required by manufacturer instructions or field condition.
 4. Maintain continuous protection of the rated assembly and do not alter the enclosure except as permitted by manufacturer instructions.
- B. Maintain manufacturer-recommended clearances around drivers, wiring, transformers, junction boxes, and heat-generating components.
- C. Coordinate with ceiling trades so enclosure does not impede ceiling tile installation, ceiling suspension components, or access requirements.

3.3 FIELD QUALITY CONTROL

- A. AHJ, special inspector, or third-party inspector may require verification that installation matches tested/listed assembly configuration.
- B. Remove and replace damaged or nonconforming products immediately.

3.4 CLEANING AND PROTECTION

- A. Remove debris from ceiling cavities after installation.
- B. Protect installed enclosures until project completion.

END OF SECTION 26 05 33

Specifier Coordination Checklist

- Verify applicable rated assembly number and hourly rating.
- Verify fixture type, dimensions, driver location, and heat clearance requirements.
- Confirm correct FRPS enclosure size and height before ordering.
- Coordinate enclosure locations with ceiling grid, joists/trusses, lighting layout, and above-ceiling obstructions.
- Submit FRPS product data, installation instructions, and fire-test/listing documentation with firestopping submittals.
- Confirm whether AHJ or special inspector requires installation photos or inspection sign-off.
- Do not permit field-fabricated boxes, untested substitutes, or modified enclosures unless approved in writing and supported by applicable listing documentation.