

# ASFI

**AMERICAN SPRAYED FIBERS, INC.**  
**We Have Found A Better Way!**

## **SOUND-PRUF™**

SPRAY APPLIED  
ACOUSTICAL/INSULATION SYSTEM

- Non-Combustible
- Contains No Asbestos
- Sound Attenuating
- Lightweight
- Non-Toxic
- Non-Corrosive
- Labor Saving
- Unlimited Shelf Life
- Does Not Support Fungus
- Meets State & Federal Laws  
Governing Recycled Materials

203 N. Staunton Court ~ Moore, SC 29369

**800-824-2997**

Email: [mail@ASFlusa.com](mailto:mail@ASFlusa.com) ~ Website: [www.ASFlusa.com](http://www.ASFlusa.com)



# SOUND-PRUF™ *acoustical / insulation*



**AMERICAN SPRAYED FIBERS, INC.**  
We Have Found A Better Way!

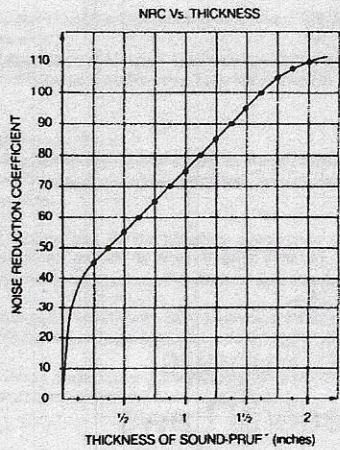
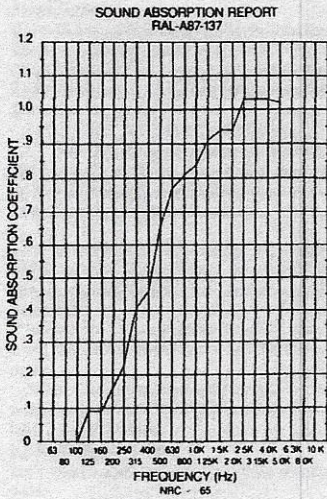
Sound-Pruf is a lightweight, spray applied acoustical product, developed by American Sprayed Fibers, Inc. with excellent noise reduction and transmission loss capabilities. Sound-Pruf is easily spray applied directly to steel, wood, concrete, and other substrates\*. In addition to providing superior acoustical control, this monolithic acoustical coating offers solid in-place durability, and has a very appealing texture. Americans Sound-Pruf is spray applied with SP-31 Adhesive and specified thickness can be obtained in one application. Backed by extensive testing, research and in-place performance, Sound-Pruf quietly remains the leading product in sound control. \*See guide specification page 4 for noted exception

| TEST                            | TEST STANDARD  | RESULT   | CONDUCTED BY              |
|---------------------------------|--|--|---------------------------|
| Sound Absorption Dry Density    | ASTM C423-84A E765<br>ASTM E605                        | NRC .50 to 1.1<br>10 lb./ft <sup>3</sup>   | Riverbank Acoustical Labs |
| Sound Transmission Dry Density  | ASTM E90-85<br>ASTM 413-73                             | Single Wall to STC54<br>Double Wall to STC61<br>Floor Const to STC54<br>10 lb./ft <sup>3</sup> | Riverbank Acoustical Labs |
| Light Reflectance               | ASTM C523-68   | 75   | Riverbank Acoustical Labs |
| Surface Burning Characteristics | ASTM E84-84<br>ANSI 2.5, NFPA 255,<br>UBC 42-1, UL 723 | Flame Spread 0<br>Fuel Contributed 0<br>Smoke Developed 0                                      | Commercial Testing Co.    |
| Fungus                          | ASTM C738 UMB 80                                       | Passed   | Commercial Testing Co.    |
| R-Value Dry Density             | ASTM C518-76<br>ASTM E605                              | R-3-8 per inch<br>dependent on density   | Commercial Testing Co.    |
| Thermal Conductivity            | ASTM C518-76   | K = .26  | Commercial Testing Co.    |
| Moisture Absorption             | ASTM C738 UMB 80                                       | 7.0% by weight   | Commercial Testing Co.    |
| Corrosive                       | ASTM 739 UMB 80  | Non corrosive on<br>copper, steel,<br>aluminum   | Commercial Testing Co.    |
| Corrosiveness                   | ASTM E937  | Non corrosive on bare<br>steel, galvanized steel,<br>shop coated steel                         | United States Testing     |
| Odor Emission                   | ASTM C738 UMB 80                                       | Passed   | Commercial Testing Co.    |
| Bond Strength                   | ASTM E736 UMB 80                                       | Greater than 150 lbs./ft. <sup>2</sup>   | Commercial Testing Co.    |
| Bond Deflection                 | ASTM E759 UMB 80                                       | No delamination<br>No cracking   | Commercial Testing Co.    |
| Air Erosion                     | ASTM E859 UMB 80                                       | 0.025 g/ft. <sup>2</sup>   | Commercial Testing Co.    |
| Combustibility                  | ASTM E136  | Non combustible  | Commercial Testing Co.    |

- Contains no asbestos
- Sound attenuating
- Lightweight
- Non-toxic
- Inorganic
- Odorless
- Non-corrosive
- Eye saving
- Eye appealing
- Negligible waste from overspray
- Obtain specified thickness in one application
- Does not support fungus
- Unlimited shelf life
- No tamping or additional hand work necessary
- "Best absorptive barrier bar none"

Approvals:  
City of Chicago  
City of New York  
MEA #312-88-M  
HUD, FHA, VA,  
NASA, State of  
California, Federal  
Specification  
SS-S-III C Type II,  
British Standard  
approval pending

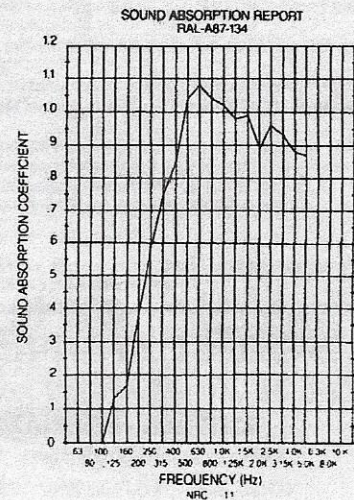
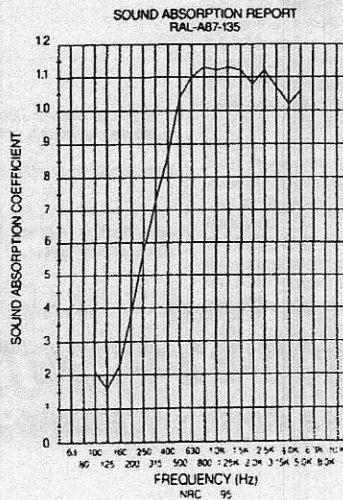
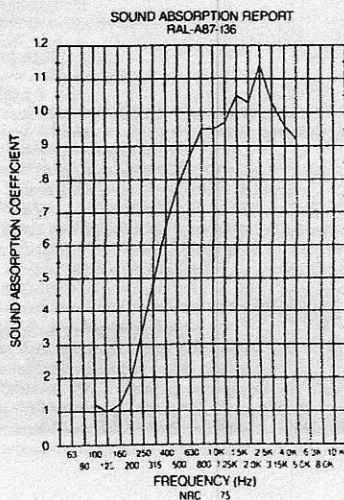
## RIVERBANK ACOUSTICAL LABORATORIES



## SOUND-PRUF™ *sound absorption*

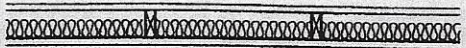



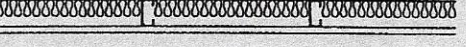



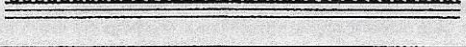
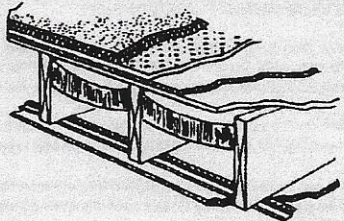
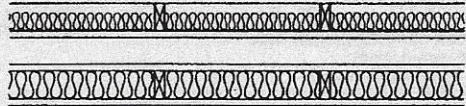
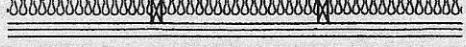
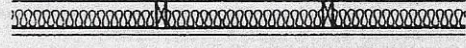

Lightweight - Low Density American Sprayed Fibers' products have been precisely blended to provide superior sound absorption properties. Noise will be subdued and held as factories and gymnasiums become quieter with one simple, economical application.

| SOUND-PRUF THICKNESS | ABSORPTION COEFFICIENTS |     |      |      |      |      |      |
|----------------------|-------------------------|-----|------|------|------|------|------|
|                      | 125                     | 250 | 500  | 1000 | 2000 | 4000 | NRC  |
| 3/8"                 | .07                     | .08 | .48  | .68  | .79  | .84  | .50  |
| 1/2"                 | .08                     | .13 | .53  | .74  | .89  | .91  | .55  |
| 5/8"                 | .09                     | .18 | .60  | .79  | .89  | 1.00 | .60  |
| 3/4"                 | .09                     | .23 | .66  | .84  | .94  | 1.03 | .65  |
| 7/8"                 | .10                     | .28 | .72  | .90  | .99  | 1.00 | .70  |
| 1"                   | .10                     | .33 | .78  | .95  | 1.03 | .98  | .75  |
| 1 1/8"               | .12                     | .39 | .85  | .99  | 1.04 | .98  | .80  |
| 1 1/4"               | .13                     | .45 | .91  | 1.04 | 1.06 | .99  | .85  |
| 1 3/8"               | .15                     | .51 | .98  | 1.08 | 1.07 | 1.01 | .90  |
| 1 1/2"               | .16                     | .57 | 1.04 | 1.12 | 1.08 | 1.02 | .95  |
| 1 5/8"               | .20                     | .62 | 1.09 | 1.15 | 1.08 | 1.04 | 1.00 |
| 1 3/4"               | .24                     | .68 | 1.14 | 1.17 | 1.09 | 1.05 | 1.05 |
| 2"                   | .33                     | .78 | 1.24 | 1.22 | 1.09 | 1.08 | 1.10 |





**sound transmission class (STC) assemblies**

| TEST#        | DESCRIPTION   | STC |   |
|--------------|---|-----|---|
| RAL-TL87-106 | Single wood studs 24" o.c., single layer 1/2" type X gypsum board each side, 1 1/2" Sound-Pruf in stud cavaties.  | 47  |     |
| RAL-TL87-107 | Single wood studs 24" o.c., single layer 1/2" type X gypsum board on one side, single layer 5/8" type X gypsum board on opposite side, stud cavaties filled with Sound-Pruf.  | 48  |     |
| RAL-TL87-108 | Single Steel studs 16" o.c., single layer 1/2" type X gypsum board on one side, single layer 5/8" type X gypsum board on opposite side, stud cavaties filled with Sound-Pruf.   | 47  |     |
| RAL-TL87-109 | Single wood studs 16" o.c., single layer 1/2" type X gypsum board on one side, single layer 5/8" gypsum board on opposite side, stud cavaties filled with Sound-Pruf.   | 42  |     |
| RAL-TL87-110 | Single steel studs 16" o.c., single layer 1/2" type X gypsum board on one side, single layer 5/8" type X gypsum board on opposite side, 1 1/2" Sound-Pruf in stud cavaties.   | 38  |     |
| RAL-TL87-111 | Single wood studs 16" o.c., single layer 5/8" type X gypsum board each side, stud cavaties filled with Sound-Pruf.  | 44  |     |
| RAL-TL87-112 | Single steel studs 16" o.c., single layer 1/2" type X gypsum board each side 1 1/2" Sound-Pruf in stud cavaties.  | 43  |     |
| RAL-TL87-113 | Single steel studs 16" o.c., single layer 1/2" type X gypsum board on one side, double layer 1/2" type X gypsum board on opposite side, 1 1/2" Sound-Pruf in stud cavaties.   | 45  |   |
| RAL-TL87-114 | Single wood studs 16" o.c., single layer 5/8" type X gypsum board on one side, double layer 5/8" type X gypsum board on opposite side, stud cavaties filled with Sound-Pruf.  | 47  |   |
| RAL-TL87-115 | Floor Panel, single 2" x 10" floor joists 16" o.c., 1/2" waferboard sub-floor, 1/2" particle board main floor, carpet, pad, single layer 5/8" type X gypsum board mounted on resilient channels, 2" Sound-Pruf sprayed in joist cavaties.   | 54  |  |
| RAL-TL87-116 | Same as above but 1" Sound-Pruf instead of 2"   | 45  |   |
| RAL-TL87-117 | Double wall, single layer 1/2" type X gypsum board on each side of single wood studs 24" o.c., 1 1/2" Sound-Pruf in stud cavaties, 1" air gap, single wood studs 24" o.c., single layer 1/2" type X gypsum board on one side, single layer 5/8" type X gypsum board on opposite side, stud cavaties filled with Sound-Pruf. | 61  |   |
| RAL-TL87-118 | Single wood studs 24" o.c., single layer 1/2" type X gypsum board on one side, mounted on resilient channels, single layer 5/8" type X gypsum board on opposite side, stud cavaties filled with Sound-Pruf.   | 54  |   |
| RAL-TL87-119 | Single wood studs 24" o.c., single layer 1/2" type X gypsum board on resilient channels on one side, single layer 1/2" type X gypsum board on opposite side, 1 1/2" Sound-Pruf in stud cavaties.  | 52  |   |
| RAL-TL87-120 | Single steel studs 16" o.c., single layer 5/8" type X gypsum board on one side, single layer 1/2" type X gypsum board mounted on resilient channels on opposite side, stud cavaties filled with Sound-Pruf.   | 53  |   |



# Architectural Guide Specification

## SOUND-PRUF™

### ACOUSTICAL INSULATION SYSTEM

#### PART 1 - GENERAL

##### 1.1 WORK INCLUDED

1.1.1 Work under this section includes the furnishing of all labor, materials, equipment, and services necessary to and incidental to, the complete and proper installation of all spray applied acoustic insulation material and related work as specified herein, and in accordance with all requirements of contract documents.

1.1.2 The material and installation shall conform to the applicable building code requirements of all authorities having jurisdiction.

##### 1.2 RELATED WORK

(See section 3.1)

##### 1.3 QUALITY ASSURANCE

1.3.1 Acoustic/insulation work shall be performed by a firm acceptable to the sprayed acoustic/insulation material manufacturer.

1.3.2 Acoustical/insulation material shall be applied by factory trained applicators only.

1.3.3 Products, execution, and material thickness shall conform with the applicable code requirements for the acoustic performance or thermal insulation.

##### 1.4 REFERENCES

###### 1.4.1 ASTM STANDARDS

C423-Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.

E785-Standard Practices for mounting Test Specimens During Sound Absorption Tests.

C413-Standard Test Method for Absorption of Chemical Resistant Mortars, Grouts, and Monolithic Surfacing.

E90-85-Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.

E84-Standard Test Method for Surface Burning Characteristics of Building Materials.

E605-Standard Test Methods for Thickness and Density of Sprayed Fire Resistive Materials Applied to Structural Members.

E736-Standard Test Methods for Cohesion/Adhesion of Sprayed Fire Resistive Materials Applied to Structural Members.

E759-Standard Test Method for Effect of Deflection of Sprayed Fire Resistive Materials Applied to Structural Members.

E859-Standard Test Method for Air Erosion of Sprayed Fire Resistive Materials Applied to Structural Members.

E937-Standard Test Method for Corrosion of Sprayed Fire Resistive Materials Applied to Bare Steel, Shop Coated Steel, and Galvanized Steel.

C738-Standard Test Method for Corrosion of Sprayed Fire Resistive Materials Applied to Copper, Steel, and Aluminum.

C739-Standard Test Method for Fungus Resistance of Sprayed Fire Resistive Materials Applied to Structural Members.

C518-(R-Value) Standard Test Method for Steady State Heat Flux Measurements and heat Transmission Properties by Means of the Heat Flow Apparatus.

C739-Standard Test Method of Moisture Vapor Absorption of Sprayed Fire Resistive Materials.

E136-Standard Test Method for Combustibility of Sprayed Fire Resistive Materials Applied to Structural Members.

##### 1.5 DELIVERY, STORAGE, HANDLING

1.5.1 Delivery: Material shall be delivered to the site as follows:

- (i) 40 lb. bags of fiber in original manufacturers' wrappings and clearly marked to identify contents.
- (ii) 55 gallon steel drums of adhesive concentrate with original manufacturers' labels, bearing the SP-31 trademark, and clearly marked to identify contents.

1.5.2 Storage and Handling: SOUND-PRUF fiber and SP-31 adhesive concentrate have unlimited shelf life and may be stored for prolonged periods of time. Bagged Material must be kept dry and protected from moisture. Any bags found to be wet shall be deemed unfit for use and discarded.

Barreled adhesive must be protected from damage, i.e. forklift forks. SP-31 adhesive concentrate is not affected by freezing, but must be thoroughly thawed and agitated before use if freezing should occur.

SP-31A adhesive has a limited shelf life, and will be permanently damaged if frozen. Any SP-31A adhesive found to be partially or totally frozen shall be deemed unfit for use and discarded.

##### PART 2-PRODUCTS

###### 2.1 MANUFACTURER

2.1.1 The acoustic material shall be a sprayed fiber manufactured under the SOUND-PRUF brand name.

AMERICAN SPRAYED FIBERS, INC.

203 N. Staunton Court

Moore, South Carolina 29369

800-824-2997

Email: mail@ASFlusa.com

Website: www.ASFlusa.com

###### 2.2 MATERIALS

2.2.1 Materials shall be asbestos-free SOUND-PRUF™ Acoustical/Insulation system, SP-31 or SP31. A liquid adhesive concentrate. These materials shall conform to the drawings, specifications, and following test criteria.

2.2 Surface Burning Characteristics: When tested in accordance with ASTM E84, the material shall exhibit the following surface burning characteristics:  
FLAME SPREAD.....0 SMOKE DEVELOPED.....0 FUEL CONTRIBUTED.....0

2.2.3 Thickness and Density: When tested in accordance with ASTM E605, the material shall meet the minimum individual and average density values, and minimum thickness values as listed for each assembly, or as required by the authority having jurisdiction:

2.2.4 Cohesion/adhesion (bond strength): When tested in accordance with ASTM E736, the material shall have a minimum bond strength of 357 lbs./ft.<sup>2</sup> applied over uncoated wood, steel, brick, block, concrete, glass, or galvanized steel.

2.2.5 Deflection: When tested in accordance with ASTM E759, the material shall not crack or delaminate from the surface to which was applied.

2.2.6 Air Erosion: When tested in accordance with ASTM E859 material loss from the finished application shall not exceed .025 g/ft.<sup>2</sup>

2.2.7 Corrosion Resistance: When tested in accordance with ASTM E937, the material shall not promote corrosion of bare steel, shop coated steel, or galvanized steel.

2.2.8 Corrosion (electrical components): When tested in accordance with ASTM C739, the material shall not promote corrosion of copper, steel, or aluminum.

2.2.9 Fungus Resistance: When tested in accordance with ASTM C739, the material shall not support the growth of fungus.

2.2.10 Thermal Resistance: (R-Value): When tested in accordance with ASTM C518, the material shall exhibit a thermal resistance related to its density. THE MANUFACTURER SHALL SUBMIT TO THE PROJECT ARCHITECT A CURRENT R-VALUE TEST REPORT, CONDUCTED AND PREPARED BY THE REPUTABLE NVLAP ACCREDITED TESTING LABORATORY.

2.2.11 Moisture Absorption: When tested in accordance with ASTM C739, moisture vapor absorption shall not exceed 8 percent by weight.

2.2.12 Odor Emission: When tested in accordance with ASTM C739, the material shall not give off a strong, or objectionable odor.

2.2.13 Sprayed acoustic/insulation material shall be free of asbestos, asbestos-contaminated vermiculite, amosite, tremolite, chrysotile, crocidolite, actinolite, or anthophyllite. Sprayed acoustic/insulation manufacturer shall provide written certification of no asbestos content upon request.

2.2.14 Sprayed acoustic/insulation material shall not promote corrosion of the substrate to which it is applied, and the material shall not contain corrosive acidic, or caustic fire retardant materials such as boric acid (crude or refined), ammonium sulfate, or aluminum trihydrate. MANUFACTURER SHALL SUBMIT WRITTEN CERTIFICATION OF NO CORROSIVE MATERIAL CONTENT TO THE PROJECT ARCHITECT, ALONG WITH ALL CORROSIVENESS TEST REPORTS. (ASTM E937 and ASTM C739).

2.2.15 Combustibility: When tested in accordance with ASTM E-136, the material shall not be combustible.

##### PART 3-EXECUTION

###### 3.1 PREPARATION

3.1.1 All surfaces to be insulated shall be free of dirt, oil, wax, rust, loose mill scale, paints/primers, or any other foreign matter that may impair adhesion of the acoustic/insulation material to the substrate. Where necessary, cleaning of the surfaces to be sprayed shall be the responsibility of the Structural Steel Erector or the General Contractor.

3.1.2 Compatibility of Surfaces: The project architect shall determine whether the painted/primed asbestos lock down substrates are compatible with the sprayed acoustic/insulation material and will facilitate complete and proper adhesion.

3.1.3 SOUND-PRUF will adhere to most clean structural surfaces, however, the use of a primer coat may be necessary on painted/primed/asbestos lockdown surfaces. Contact manufacturer for further compatibility information.

3.1.4 Clips, hangers, support sleeves, and other attachments shall be in place before application of acoustic/insulation material.

3.1.5 Rolling compounds and lubricants used in the manufacture of steel deck and steel siding may impair adhesion of acoustic/insulation material to the substrate. Steel deck and steel siding specifications shall call for the deck/siding manufacturer to supply deck/siding free of such compounds or lubricants. Ducts, pipes, or other suspended matter shall not be installed until acoustic/insulation application is completed.

3.1.6 Metal sidings use in the pre-engineered steel building industry are coated with a wide variety of interior (backer) finishes. Certain types of backer coatings may require the applications of a primer to ensure adhesion of sprayed acoustic/insulation material to the substrate. The project architect shall determine the type of backer coating used, and compatibility with the acoustic/insulation material. Contact American Sprayed Fibers, Inc. for complete information on backer coatings, compatibility, and acceptable acoustical/insulation primers.

3.1.7 The project architect shall call for a galvanized interior (backer) coating in steel siding specifications if possible.

3.1.8 All roofing applications shall be completed prior to application of acoustic/insulation material to the underside of roof decks. All roof traffic shall be prohibited upon beginning of acoustic/insulation applications, and until the acoustic/insulation material is fully cured and dried.

3.1.9 All concrete work shall be completed prior to application of acoustical/insulation to underside of steel deck.

3.1.10 The applicator shall provide all necessary drop cloths, masking, and coverings, to prevent acoustic/insulation overspray.

3.1.11 Application of acoustic/insulation material shall not begin until the applicator and general contractor have inspected the surfaces to be sprayed, and performed bond strength tests necessary, to determine these surfaces acceptable to receive acoustic/insulation material.

3.1.12 When outdoor temperature is below 32 degrees F, substrate and ambient temperatures of 35 degrees F or higher must be maintained for 24 hours before, during, and 24 hours after application of the acoustic/insulation material. If necessary, the general contractor shall provide heated enclosures to maintain proper temperatures for job progress. Drying time for temperatures above 32 degrees depend on thickness sprayed.

3.1.13 Beginning of installation means applicator accepts existing substrate conditions, and environmental conditions.

3.1.14 Project Architect, Owner, General Contractor and applicator must agree on finish texture of material before commencement of work.

###### 3.2 APPLICATION

3.2.1 Application procedures and equipment shall conform to the acoustic/insulation material manufacturers' application instructions.

3.2.2 The acoustical/insulation contractor shall cooperate with the other trades in coordination and scheduling of work to avoid impeding job progress.

3.2.3 Maintain proper temperature and ventilation necessary for application and curing/drying of sprayed acoustic/insulation material.

3.2.4 All patching and repairing of acoustic/insulation material due to damage by other trades shall be performed under this section and paid for by the trade(s) responsible for the damage.

###### 3.3 FIELD QUALITY CONTROL

3.3.1 Acoustic/insulation material shall be installed by factory trained applicators only.

3.3.2 The project architect may select an independent testing laboratory to sample and verify the thickness and density of the acoustic/insulation material in accordance with ASTM E605, Standard Test Methods for Thickness and Density of Sprayed Fire Resistive Materials Applied to Structural Members.

###### 3.4 CLEANING

3.4.1 Upon completion of insulation work, application equipment shall be removed and all surfaces not to be sprayed shall be cleaned of any material deposits.

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