

PRODEX HYBRID

APPLICATION FOR
LIGHTWEIGHT WALL SYSTEMS

3 PRODUCTS IN 1

- ▶ Acoustic insulation
- ▶ Reflective insulation
- ▶ Vapor barrier



ALL-IN-ONE

Hybrid solution for sound control,
thermal comfort, and moisture resistance



Table of Contents

About PRODEX	3
Certifications & Standards	4
PRODEX Hybrid	5
Applications & Benefits	6
Step-by-Step Installation	7-11
Product Construction.....	12
How PRODEX Hybrid Insulation Reduces Heat	13
Acoustic Performance	14-15

ABOUT PRODEX

MISSION

PRODEX is an international company that delivers innovative solutions in insulation and packaging, recognized as a market leader in every country where we operate, and committed to world-class management standards. We are dedicated to the satisfaction of our customers, employees, and shareholders, while promoting environmental sustainability and contributing to the well-being of society. Our actions are guided by the principles of social responsibility.

VISION

We are a company of excellence, internationally recognized for our innovation, value-added solutions in insulation and packaging, close customer relationships, and strong commitment to environmental sustainability and the circular economy.



Over **30 years**
of experience
in insulation
and packaging
solutions



Brand presence in
28+ countries
across the
Americas



350+ employees
working in our 6
production plants



Local
presence,
global impact

- Costa Rica
- United States
- Guatemala
- Panama
- Peru CEDI
- Dominican Republic
- Trinidad & Tobago

CERTIFICATIONS & STANDARDS THAT ENDORSE PRODEX QUALITY

RIMA Verification

It is a third-party validation process that certifies reflective insulation products meet the technical requirements demanded by the industry. A product that has not been validated by **RIMA** cannot guarantee proper performance and functionality.

RIMA stands for the Reflective Insulation Manufacturers Association International.

NFPA PRODEX

Prodex complies with the requirements established by the National Fire Protection Association (**NFPA**), in accordance with the Life Safety Code **NFPA 101**. This gives our customers confidence that our insulation products meet the highest standards in fire safety.

American Society for Testing and Materials (ASTM)

PRODEX insulations comply with the technical requirements established under **ASTM C1224**, which defines the criteria a buyer must consider before selecting a reflective insulation.

This standard covers both the necessary quality specifications and the laboratory tests the insulation must undergo.



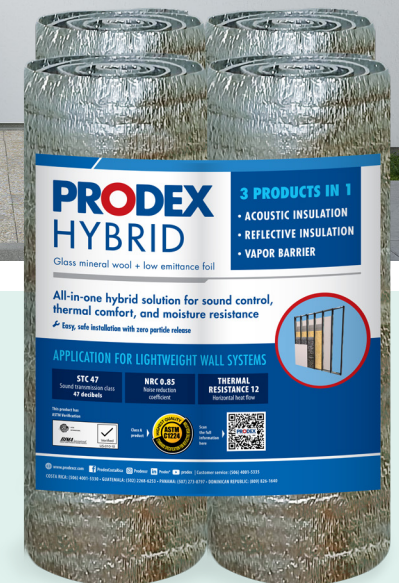
PRODEX HYBRID APPLICATION FOR LIGHTWEIGHT WALL SYSTEMS



Cooler, quieter...



and more
private spaces



APPLICATIONS & BENEFITS

APPLICATIONS



INDUSTRIAL



COMMERCIAL



RESIDENTIAL

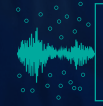
USES

- Apartments
- Building facades
- Churches
- Clubs
- Convention centers
- Gyms
- High Schools
- Hospitals
- Hotels
- Houses
- Libraries
- Offices, Boardrooms
- Recording studios
- Retrofit
- Schools
- Theaters
- Universities
- and many more...

Disclaimer: STC 47 valid only with PRODEX Acoustic Tape; otherwise STC 45.



BENEFITS



Reduces external noise intrusion



Controls heat gain in interior spaces



No risk of allergies or respiratory problems



Supports sustainable construction



Generates energy savings



Allows privacy between rooms



Safe product



Easy to install



STEP-BY-STEP INSTALLATION



 Easy, safe installation with zero particle release

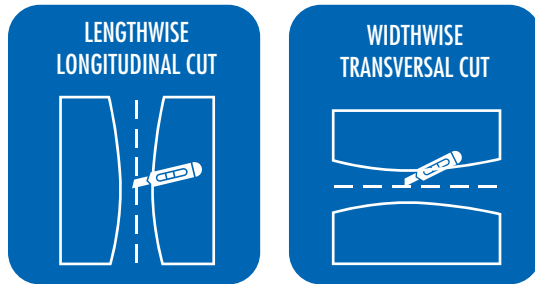
ENCAPSULATED FIBERGLASS

PRODEX Hybrid is an innovative system that does not require personal protective equipment for installation.

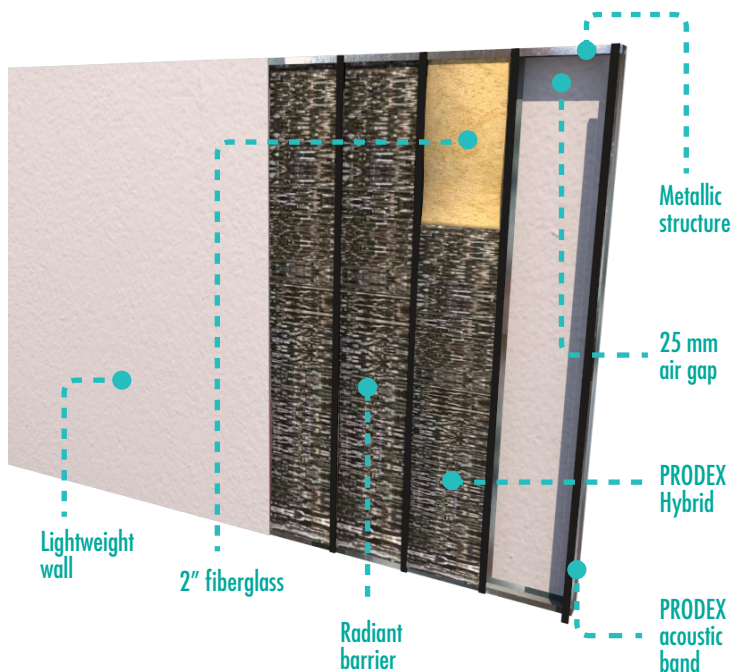


STEP-BY-STEP INSTALLATION

TYPES OF CUTS



CONSTRUCTION DETAIL IN LIGHTWEIGHT WALLS



STEP 1

Assemble 16\" or 24\" (41 cm or 61 cm) center-to-center framing for lightweight wall system.



The metal framing members are attached per the lightweight wall manufacturer's instructions.

STEP 2

Remove the PRODEX Hybrid insulation from its packaging.



Be sure to place the rolls of PRODEX Hybrid in a dust and moisture free location during the installation process.

STEP 3

Prodex Hybrid rolls come in lengths of 8 ft and 10 ft (2.44 m and 3.05 m). Measure the length of the internal wall cavity.



Measure the length of the lightweight wall cavity where the PRODEX Hybrid insulation strip will be placed.

STEP 4

Transversal cut (*B).



Make a cut with a utility knife, supported by a cut-resistant surface such as a piece of wood. You may leave a surplus of radiant barrier to use as an overlap between rolls.

STEP-BY-STEP INSTALLATION

STEP 4.1

Staple placement.



Using a standard stapler fix the fiberglass core with the reflective wrap at three points, at both ends and at the center of the insulator in cross section.

STEP 4.2

Alternative seal.



The cross section can be sealed with 2 segments of duct tape, placed and facing each other on both sides of the cross section.

STEP 5

Longitudinal cut (A*).



If the wall cavity does not match the width measurement of the PRODEX Hybrid insulation, a longitudinal cut will be necessary.

STEP 5.1

Measuring the cavity between studs.



Measure the center-to-center distance of the studs in the section of the structure to be insulated. Mark the PRODEX Hybrid insulation with this measurement.

STEP 5.2

Cut.



Make a cut with a utility knife along the lengthwise section of the PRODEX Hybrid insulation, supported by a cut-resistant surface such as a piece of wood.

STEP 5.3

Staple placement.



Using a standard stapler fix the fiberglass core with the reflective wrap at three points; place the staples 24 inches (61 cm) apart along their longitudinal section.

STEP-BY-STEP INSTALLATION

STEP 5.4

Alternative sealing.



As an alternative step, the longitudinal cut can be sealed with 2 segments of duct tape, placed and facing each other on both sides of the cut.

STEP 6

Place PRODEX Hybrid on lightweight wall framing.



PRODEX Hybrid insulation is positioned over the structure ensuring that no open spaces are left between the structure and the reflective foil.

STEP 7

Fit the fiberglass to the vessel.



Ensure that the fiberglass is not compressed between the reflective capsule and the lightweight wall structure.

STEP 7.1

Alternative Cutting.



As an optional step, 2" x 2" (50 mm x 50 mm) cuts can be made at the top and bottom corners of the PRODEX Hybrid insulation to ensure better positioning of the fiber in case the structure is a metal profile.

STEP 8

Fastening the PRODEX Hybrid Insulation to the lightweight structure.



Fasten the PRODEX Hybrid insulation with screw and drill to the lightweight structure, use the side overlaps as an anchoring surface, and be sure to place two screws in the top section of the PRODEX Hybrid insulation to prevent the mass insulation from sliding into the cavity.

STEP 9

Repeat steps 4 through 7 for each section of wall to be insulated.



Make sure there are no gaps between the PRODEX Hybrid rolls and the lightweight wall structure.

STEP-BY-STEP INSTALLATION

STEP 10

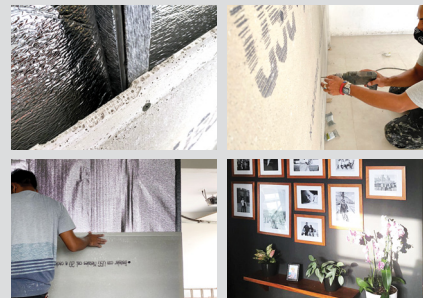
Place the PRODEX Acoustical Strips.



On the perimeter of the metal surfaces that will be in contact with the lightweight wall sheathing, the acoustical strip will be placed to reduce the acoustic bridging effect.

STEP 11

Place the lightweight wall sheathing.



Finish the lightweight wall. Use filler, tape, mesh, as recommended by the manufacturer. Make sure there are no gaps between the wall sheathing and the PRODEX Hybrid insulation.



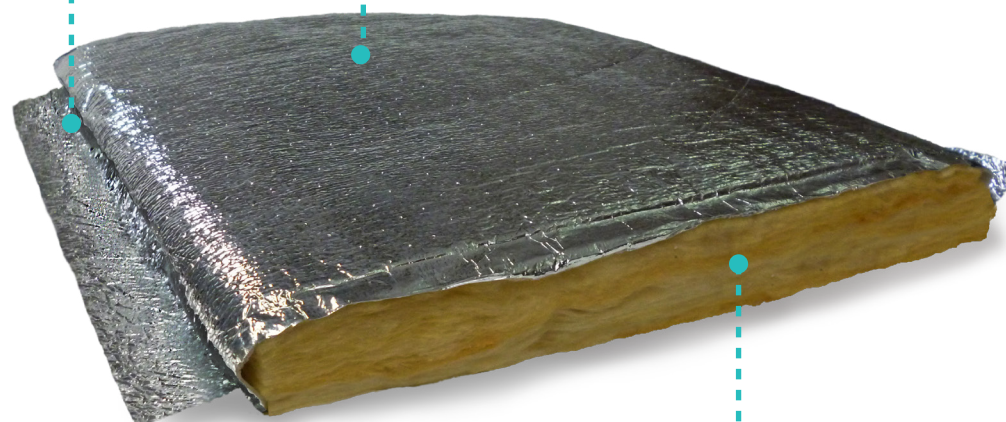
PRODUCT CONSTRUCTION

GLASS MINERAL + LOW
EMITTANCE FOIL

Joints sealed with patented processes that ensure capsule stability without compromising core thickness and that break the acoustic bridge between the wall liner and the lightweight wall structure.

Capsule outer shell composed of low-density polyethylene foam and dual-purpose low emittance foil:

- 1- Vapor barrier.**
- 2- Reflective insulation when adjacent to the air inside the cavity.**



Fiberglass core as a mass insulator that limits conduction and attenuates sound waves.

DOUBLE SIDED ALUMINUM FOR LIGHTWEIGHT WALLS			
CODE	THERMAL RESISTANCE	EMITTANCE	SIZE
HDS216	R12	0.072	8'0" long x 1'4" wide x 2 in thick
HDS224	R12	0.072	8'0" long x 2'0" wide x 2 in thick
HDM216	R12	0.072	10'0" long x 1'4" wide x 2 in thick
HDM224	R12	0.072	10'0" long x 2'0" wide x 2 in thick

HOW DOES **PRODEX HYBRID** **INSULATION** REDUCE HEAT?

PRODEX Hybrid Insulation reduces heat transfer through its core and lowers heat emission with its low-emittance surface technology.

PRODEX HYBRID

Is the only Thermal Acoustic Insulator on the market that limits the 3 heat transfer mechanisms:



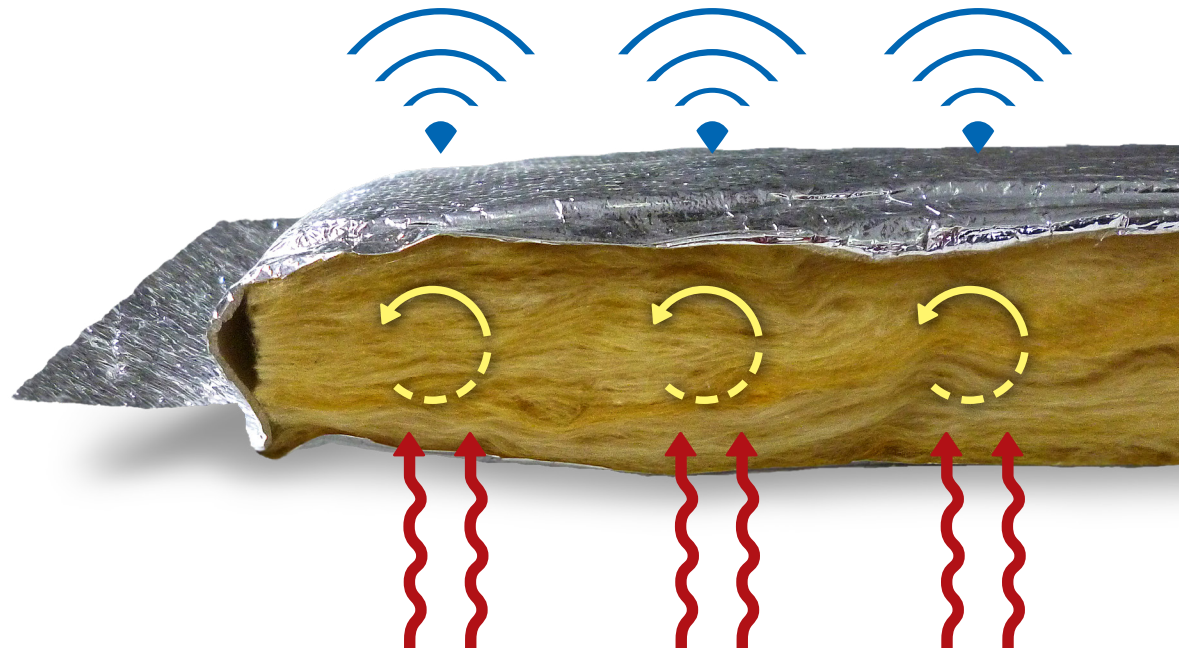
RADIATION



CONDUCTION



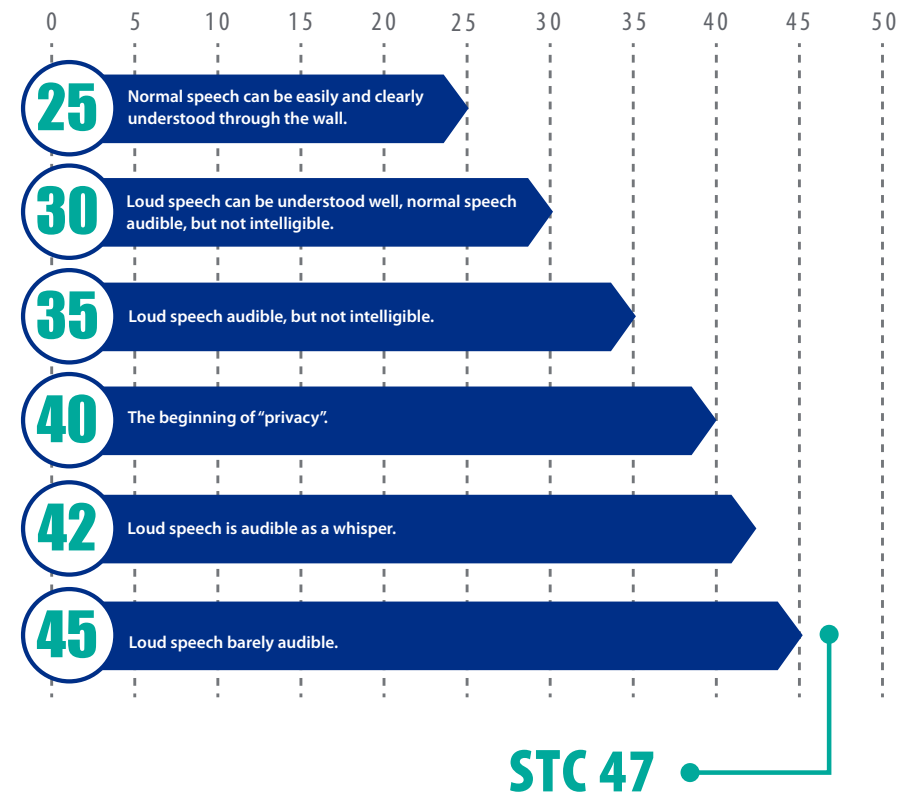
CONVECTION



ACOUSTIC PERFORMANCE

Sound transmission class with PRODEX HYBRID: 47 decibels

STC RATINGS



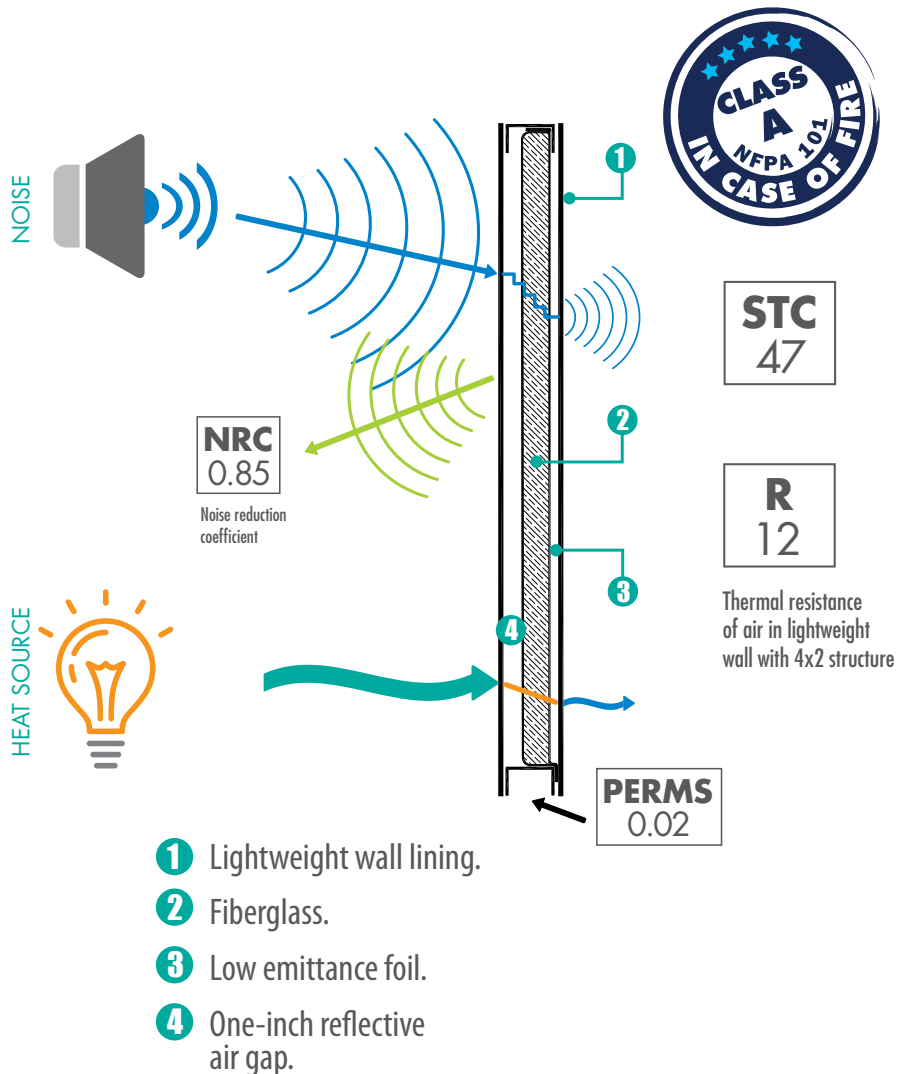
NRC 0.85

Noise Reduction
Coefficient

**THERMAL
RESISTANCE 12**

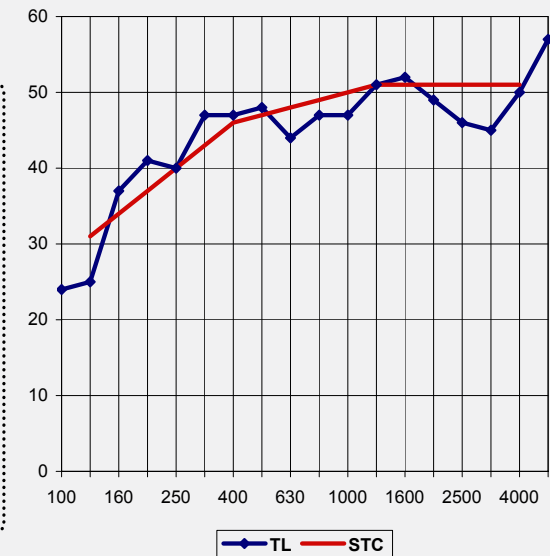
ACOUSTIC PERFORMANCE

THERMO-ACOUSTIC INSULATED WALL WITH HYBRID PRODEX



Noise attenuation level offered by the **PRODEX HYBRID** product with an **STC 41** value

Frequency Hz	TL dB
100	24
125	25
160	37
200	41
250	40
315	47
400	47
500	48
630	44
800	47
1000	47
1250	51
1600	52
2000	49
2500	46
3150	45
4000	50
5000	57



STC

47

ASTM E 413



PRODEX

LEADERS IN THERMAL INSULATION FOR CONSTRUCTION

 **CUSTOMER SERVICE: (506) 4001-5335**

COSTA RICA, PRODUCTOS DE ESPUMA S.A.:

 (506) 4001-5330
 Industrial Park Free Trade Zone BES,
El Coyol de Alajuela.

PANAMA, PRODEX PANAMA S.A.:

 (507) 273-879
 Panexport Free Trade Zone, San Miguelito,
Warehouse #6, Panama City.

DOMINICAN REPUBLIC, PRODEX DOMINICANA SRL.:

 (809) 826-1640
 Intercontinental Free Trade Zone, Km 24 Old Duarte
Highway, Corner of Circunvalacion de Santo Domingo.

GUATEMALA, PRODUCTOS DE ESPUMA GUATEMALA, S.A.:

 (502) 2268-6253
 Kilometer 98, Peñate neighborhood,
San Jose, Escuintla.

 www.prodexcr.com



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