



## INTRODUCTION

**INSULROCK™** brand mineral wool core panels are an exciting addition to the Advanced Insulation Concepts family of insulating panels. **INSULROCK™** is a stressed skin sandwich panel with metal or fiberglass reinforced polyester facings permanently bonded to a **ConRock™** brand structural mineral fiber core with a heat polymerizing adhesive. **INSULROCK™** panels look like **ISOWALL™** brand insulating panels and can have similar facings and joint treatment so they can be used together when appropriate. The difference is the core. **INSULROCK™** has an inorganic core consisting of fibers of volcanic rock. **INSULROCK™** panels have achieved up to a Three Hour Fire Resistance Rating when tested by ASTM E119 (UL263).

Unlike plastic foams such as expanded polystyrene, polyurethane foam, or cellular-modified isocyanurate. **ConRock™** does not burn. In fact, mineral wool is often used for fire protection of steel. An **INSULROCK™** panel with steel or aluminum facings is almost entirely inorganic. The only organic materials in a typical wall assembly are a small amount of binder in the mineral wool, the panel laminating adhesive, and any joint sealant used.

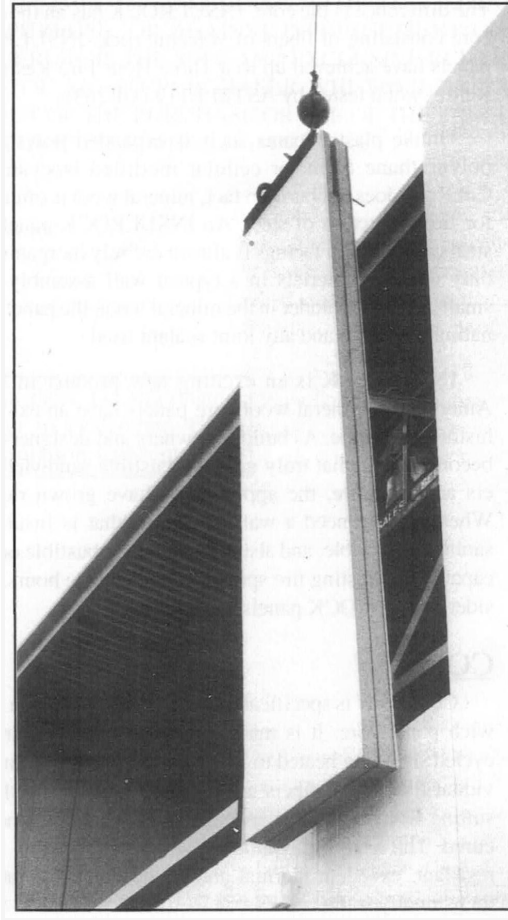
**INSULROCK™** is an exciting new product in North America but mineral wool core panels have an extensive history in Europe. As building owners and designers have become aware that truly non-combustible sandwich panels are available, the applications have grown rapidly. Wherever you need a wall or ceiling that is insulating, sanitary, washable, and also truly non-combustible or even capable of resisting fire spread for up to three hours, consider **INSULROCK™** panels.

## CORE

Conrock B is specifically designated for use as a sandwich panel core. It is made from volcanic rock and recycled steel slag heated to 2700°F and spun into thin individual fibers. The fibers are bonded together and the resulting wool is cured in special ovens where the binder is cured. The resulting boards are structurally sound, water resistant, excellent thermal and sound insulators, and dimensionally stable.

## FACINGS

All standard facings can be used with the mineral wool core. The Underwriters Laboratories listing is for panels with either embossed or smooth .020" min. White painted galvanized steel. Plastic-coated steel should be accepted as an equivalent facing. INSULROCK™ panels with other facings, such as fiberglass reinforced polyester, are not classified by Underwriters Laboratories. However, the inorganic core makes FRP facings more acceptable in jurisdictions where they cannot be used directly over a plastic foam core. FRP/mineral wool panels are particularly popular in Europe for food processing plant applications where cooking or smoking is involved



## SPAN CHARACTERISTICS

PANEL THICKNESS	PANEL WEIGHT	UNIFORM LOAD (PSF)						
		5	10	15	20	25	30	40
4"	5.4	22.2	15.7	12.8	11.1	9.9	8.2	6.2
6"	7.2	27.3	19.3	15.7	13.6	21.1	10.1	7.6
8"	9.0	31.5	22.3	18.2	15.8	14.0	11.6	8.7
10"	10.9	35.2	24.9	20.3	17.6	15.6	13.0	9.8
12"	12.7	38.6	27.3	19.3	19.3	17.1	14.2	10.7

ISOWALL



INSULROCK

REGENT

OKTOPUS

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Advanced Insulation Concepts, Inc., reserves the right to change materials or construction without notice.

## **NOTES:**

- (1) Allowable spans are governed by panel strength, including bending and shear. All deflections are less than 1/240 of the span. Spans are given to the nearest tenth of a foot.
- (2) Bending safety factor is 2.5 for 5 PSF and 10 PSF (Interior Partition Loads) and 1.875 for 15 PSF and above (Wind Loads). Shear Safety factor is 3.0.
- (3) Facings: .020" minimum galvanized steel, ASTM A653, Grade 33
- (4) Core: ConRock B brand mineral wool, 10 p.c.f.
- (5) Edge Treatment: Tongue and Groove (TAGET)

## **THERMAL RESISTANCE:**

INSULROCK™ provides a Thermal Resistance of 3.61 hr•ft²•°F/BTU•in. Within the range of mean temperatures normally associated with refrigerated and normal temperature buildings.

## **UL - FIRE ENDURANCE RATINGS:**

Underwriters Laboratories, Inc. has tested a four inch thick INSULROCK™ panel system with .020" min. Painted galvanized steel facings in accordance with Standard UL263, Fire Tests of Building Construction and Materials (ASTM E119). The panel system performed satisfactorily for one hour and passed the hose stream test. A similar six inch thick INSULROCK™ panel achieved a Three Hour - Fire Resistance Classification and passed the hose stream test. The panel systems are listed by Underwriters laboratories under Fire Resistance Classification Design No. U042, File R16357(N)

## **LIMITATIONS AND PRECAUTIONS:**

1. Follow safety guidelines for fabricating mineral wool core panels. The use of a NIOSH approved dust mask such as 3M Model 8710 is recommended for dusty conditions.
2. Use of safety glasses or dust goggles is recommended, especially when panels are handled above eye level.
3. Gloves and loose-fitting, long sleeved clothing are recommended.
4. Mineral fiber has excellent resistance to moisture and does not lose its structural integrity when exposed to moisture. However, it is a fibrous material with a high water vapor transmission rate. The panel core should be protected from rain during construction. Panel joints must be carefully sealed to provide vapor barrier continuity and to provide required resistance to moisture and air filtration when the panels are used for exterior walls.
5. Good housekeeping should be observed. Properly dispose of scrap material daily.

## **WARRANTY:**



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All INSULROCK™ brand insulating panels furnished by Advanced Insulating Concepts, Inc. (AIC) shall conform to the specifications found on [www.aicinsulate.com](http://www.aicinsulate.com) and in the Bill of Materials used to order them and will be free from defects in material and workmanship when delivered to the job site. If any panels fail to conform to the above warranty, AIC will, upon written notice thereof received within one year following the initial date of installation, repair or replace, at AIC's option, the nonconforming panels. This warranty shall not apply to failure caused by acts of God, fire, abuse or abnormal use, or other casualties, nor to panels which have not been used in the building application of adequate design, engineering and construction and in accordance with AIC's current design and installation recommendations.

AIC MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR AGAINST INFRINGEMENT OF ANY PATENT), REPAIR OR REPLACEMENT, AS SET FORTH HEREIN, IS THE SOLE AND EXCLUSIVE REMEDY OF PURCHASER AND WILL SATISFY ALL LIABILITIES OF AIC TO PURCHASER WHETHER BASED ON CONTRACT, NEGLIGENCE OR OTHERWISE ARISING OUT OF THE PURCHASE OR USE OF THE PANELS. IN NO EVENT WILL AIC BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

INSULROCK™ is a registered trademark of Advanced Insulation Concepts, Inc.  
ISOWALL™ is a registered trademark of Advanced Insulation Concepts, Inc.  
ConRock™ is a registered trademark of Roxul, Inc.



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