

## SPEED. SIMPLICITY. SAVINGS.

STEEP SLOPE ROOFING PRODUCT GUIDE



# ABOUT ICP ADHESIVES & SEALANTS

ICP Adhesives and Sealants, Inc. (ICP) has been a leading manufacturer in the low pressure polyurethane foam industry since 1975. We pride ourselves on our ability to service companies large and small with the same one-on-one attention.

#### INNOVATIONS THAT IMPROVE.

As an industry leader, ICP is built on the foundation of Innovations that Improve® through its commitment to develop products, exclusive technologies, and services that improve the overall product performance, safety and experience for our customers.



#### **UNPARALLELED SERVICE**

ICP provides accessible, personalized support when you need it. We have long standing relationships with our distributors and partners since 1975. Relationships that were built on trust, respect and doing right by our customers.



#### **PRODUCT STEWARDSHIP**

ICP is an industry leader in product and environmental stewardship. Our Work Smart program has educated thousands on the safe and proper use of low pressure polyurethane foam adhesive products. In addition, many of the ICP Adhesive & Sealants' products carry the prestigious GREENGUARD GOLD certification signifying that our products are low emitting and contribute to healthier indoor environments.



#### **TRAINING**

The proper education on the storage, use and application of Polyset roofing adhesive products is essential and ICP provides the tools to make it happen. From extensive product documentation and in-person training events, ICP is committed to delivering everything you need to succeed. We provide intensive training and issue Qualified Applicator ID cards as verification of required skills.

### POLYSET® STEEP SLOPE

**ROOFING ADHESIVES** 

Polyset® roofing adhesives provide low pressure solutions for steep slope roof tile adhesion. Polyset products are available in the form of low pressure one- and two-component polyurethane foam adhesives in pressurized disposable and refillable packaging. All Polyset roofing adhesive products offer speed and simplicity through unique dispensing technology, strong adhesion properties, along with ease in application and durability. For steep slope applications, Polyset roof tile adhesives are approved for use in the most stringent highwind regions of the world.

- New and re-roof applications
- Clay and concrete roof tiles
- Hips/ridges
- Valley cuts

- Repairs
- Eliminates nail penetrations
- Prevents tile chattering







## POLYSET® RTA-1 ROOF TILE ADHESIVE



Polyset® RTA-1 is a one-component polyurethane adhesive specifically designed to bond concrete and clay roofing tiles to approved underlayment on new construction and repair work. The unique product properties, improved performance and professional dispensing unit give Polyset RTA-1 many advantages over the use of traditional fastening methods such as mortar, nails, screws, or other one component adhesives.

ITEM	DESCRIPTION	YIELDS*
62480749308	RTA-1 20 OZ (12 PACK)	30 tiles (per can)
62480880202	RTA-1 23 LB CYLINDER	722 tiles

\*Theoretical installed tiles per package based on low profile tile. See product specific TDS for additional information.

#### **VARIETY OF APPLICATIONS & BENEFITS**

- Adheres concrete or clay roof tiles and other roofing components
- Excellent for high wind hip and ridge tile application
- Virtually eliminates nail penetrations
- Ideal for installing cut pieces at hips and valleys
- Prevents tile chattering
- Minimizes tile installation damage associated with mechanical fasteners
- Contains no VOCs (minus exempted compounds)
- Improves break stregnth by 80%
- 4.4 R value on our large paddy

#### **RTA-1 TECHNICAL DATA\***

OPEN TIME	1 - 5 minutes**
SET-UP TIME	10 - 20 minutes**
FULLY CURED TIME	24 - 48 hours
SHELF LIFE	12 months

<sup>\*</sup>See product specific TDS for additional information.



<sup>\*\*</sup>Times may be affected by temperature and weather conditions.

## POLYSET® AH-160

**ROOF TILE ADHESIVE** 



Polyset® AH-160 is the professional roofer's complete solution for concrete or clay roof tile attachment. Polyset AH-160 is a two-component, low-pressure polyurethane foam adhesive that adheres each individual tile in place. It can be used without mechanical fasteners so it won't puncture the waterproofing membrane or the roof deck. Polyset AH-160 has superior holding power compared to nails, screws, mortar and wire tie systems.

ITEM	DESCRIPTION	YIELDS*
62481389104	AH-160 PROPACK 30 KIT	400 tiles
62481389302	AH-160 PROPACK 100 KIT	1,295 tiles
62481281509	AH-160 17 GAL. REFILL PART A	
62484681507	AH-160 17 GAL. REFILL PART B	4384 tiles
62481283000	AH-160 60 GAL. REFILL PART A	
62484683008	AH-160 60 GAL. REFILL PART B	17,236 tiles

<sup>\*</sup>Theoretical installed tiles per package based on 2" x 7" medium paddy. See product specific TDS for additional information.



For more information about our warranty program, please contact your local Polyset representative.

#### **VARIETY OF APPLICATIONS & BENEFITS**

- High wind environments
- Non-nailable decks: Concrete, Metal, Insulation/gypsum board
- Low or steep slopes
- Roofs needing increased thermal performance
- Concrete, clay and especially lightweight tiles that require enhanced walkability
- Virtually eliminates nail penetrations through membranes and roof decks
- Greener? Yes!
  - Thermal resistance (up to 4.4 R-value)
  - Exceeds Title 24 energy code
  - VOCs less than 5 g/L (SCAQMD Rule 1168 Compliant)

#### **AH-160 TECHNICAL DATA\***

OPEN TIME	1 - 2 minutes**
SET-UP TIME	10 - 20 minutes**
FULLY CURED TIME	24 - 48 hours
SHELF LIFE	12 months

<sup>\*</sup>See product specific TDS for additional information.



<sup>\*\*</sup>Times may be affected by temperature and weather conditions.

<sup>4 |</sup> Polyset®Steep Slope Roofing Product Guide



## POLYSET® AH-160

**ROOF TILE ADHESIVE** 

#### **SECURE ATTACHMENT**

When first applied, Polyset® AH-160 is in a gel-like state, allowing it to flow into all the surface irregularities of the deck and tile. The end result is a strong bond between the tile and the roof. The tiles are effectively glued to the roof. Should a single tile crack or get knocked loose by airborne debris, the adjacent tiles remain firmly in place.

I Prevents tile chattering & damage I

#### **ZERO PENETRATIONS**

Each nail or screw used in a traditional tile roof penetrates the waterproofing membrane and roof deck. Each penetration is a leak just waiting to happen. Because tiles on a Polyset AH-160 roof are adhered and not mechanically fastened, the roof deck integrity isn't compromised.

I Drastically reduced potential for leaks I

#### A STRONGER TILE SUPPORT SYSTEM

The foam paddy in a Polyset AH-160 roof acts like a cushion and provides added support underneath the tile, enhancing its loadbearing characteristics.

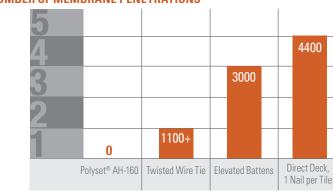
I Up to 80% stronger I

#### **HURRICANE CATEGORY COMPARISON**



ASCE 7-10 Wind Design Standard. Exposure C, 30 foot mean roof height, Importance factor 1.00, High Profile based on a tile factor of 1,407, 2:12 to 6:12 slope, gable/hip roofs.

#### NUMBER OF MEMBRANE PENETRATIONS

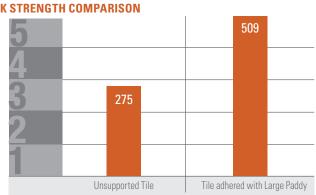


Based on 50 square roof, at 88 pieces per square, on a 4:12 pitch.

#### **BREAK STRENGTH COMPARISON**

Weight Sustained Before Failure (Hundreds of Pounds)

Thousands of Nail Penetrations (Total)



Tested in accordance with ASTM C 1492-03 and performed with low profile, lightweight tile.

#### PRODUCT YIELDS—INSTALLED TILES PER PACKAGE\*\*

PADDY SIZES	DIMENSIONS	PROPACK 30	PROPACK 100	17 GAL. CYLINDERS	60 GAL. CYLINDERS
MEDIUM	(1) Min. 2" X 7"	400	1,295	4,384	17,236
LARGE	(1) Min. 2" X 10"	222	719	2,436	9,576
TWO PIECE	(1) Min. 2" X 10" (2) Min. ea.  1" X 10"	353	1,143	3,868	15,208

<sup>\*\*</sup> These figures represent optimal scenarios. Actual package yields may vary and are subject to differences in tile profile, dimensions and manufacturer.

### **EXCLUSIVE TECHNOLOGIES**

As part of our unwavering dedication to product innovation, we are proud to deliver exclusive technologies only offered by ICP Adhesives & Sealants, Inc.





#### FOAMPRO® AUTO CALIBRATOR

The FoamPro® Auto Calibrator is a low-pressure foam adhesive dispensing breakthrough.

- Provides precise chemical ratio.
- No manual calibration needed.
- Helps to maximize product yield.
- For use with all of our refillable systems.
- Universal mounting points.
- Provides incredible ease of use and unprecedented productivity.



#### FOAMPRO® GUN

The FoamPro RTF1000EZ is the latest addition to the long line of rugged and reliable dispensers from ICP Adhesives & Sealants. Over time, our delivery systems have been refined to provide easy to use and easy to maintain tools for our contractors.

- Engineered for quick setup and shutdown.
- Provides consistency from jobsite to jobsite.
- Rugged all metal design.
- Trouble-free service.



The patented **Handi-Gun dispensing unit** offers easy nozzle attachments, responsive triggers for accurate metering and clear hoses to provide easy viewing of chemical flow.

- Snap On/Snap Off Nozzles: Convenient ColorWise® Temperature Warning Nozzles attachments with a snap-on, snap-off connection.
- Responsive Trigger: Allows for accurate metering, precise application, labor savings and reduced waste.
- Enhanced Visibility: Clear hoses attached to the Handi-Gun provide easy viewing of the chemical flow.



**ColorWise® Temperature Warning Nozzles** change from clear to blue, indicating that the chemical has reached a cold temperature [below 60°F (16°C)] and the adhesive should not be dispensed. Stop spraying to avoid off-ratio adhesive and yield loss, and properly condition the chemical before spraying again.









## POLYSET® PRODUCT & ACCESSORY

## **ORDERING GUIDE**

POLYSET AH-160 TWO-COMPONENT ADHESIVE		
PART #	DESCRIPTION	
62481281509	AH-160 17 GAL. REFILL PART A	
62484681507	AH-160 17 GAL. REFILL PART B	
62481283000	AH-160 60 GAL. REFILL PART A	
62484683008	AH-160 60 GAL. REFILL PART B	
62481389104	AH-160 PROPACK 30 KIT	
62481389302	AH-160 PROPACK 100 KIT	
POLYSET RTA-1 ONE-COMPONENT ADHESIVE		
PART #	DESCRIPTION	
62480749308	RTA-1 20 OZ (12 PACK)	
62480880202	RTA-1 23 LB CYLINDER	
CLEANERS		
PART #	DESCRIPTION	
62484448303	POLYSOLV 12 OZ. AEROSOL CLEANER (12 PACK)	
PERSONAL PROTECTIVE EQUIPMENT (PPE)		
PART #	DESCRIPTION	
F65251	CONTRACTOR SAFETY KIT (INCLUDES: SAFETY GLASSES, NITRILE GLOVES (2 PAIRS), NIOSH APPROVED RESPIRATOR (MEDI- UM SIZE, ORGANIC VAPOR CARTRIDGES, DUST/MIST PREFILTERS AND 10 HYGIENIC WIPES), TYVEK® APRON & ARM GAUNTLETS)	

ACCESSORIES	
PART #	DESCRIPTION
62988510418	FOAMPRO® AUTO CALIBRATOR
62988511952	PP104R 25' APPLICATOR & HOSE
62988510046	RTF1000EZ 100 F0AM DISPENSER W/ 100' (30 M) HOSE
62988510053	RTF1000EZ 150 FOAM DISPENSER W/ 150' (46 M) HOSE
62988510061	RTF1000EZ 200 F0AM DISPENSER W/ 200' (60 M) HOSE
62988511937	PP1/GH 7FT APPLIC/HOSE REPLACE FOR RTA-1
62988511945	PP101R APPL/HOSE ASSEMB RESTRCT 9 1/2 FT
62988511978	RTA-1 NOZZLES PSI/NP, 6 PER CASE
62484075304	A1008 POLYURETHANE GLYCOL CLEANER
62484175302	AUTO CALIBRATOR LUBRICANT IN109 1 GAL/CS
F66125	COLORWISE® LONG CONE NOZZLES (25 PACK)
F66172	COLORWISE® LONG CONE NOZZLE (8 PACK)
F66174	COLORWISE® LONG CONE NOZZLE (8 PACK) W/WRENCH

## PERSONAL PROTECTIVE EQUIPMENT



Working smart is about choosing the best solution for the job and then executing the project safely. When using any low pressure polyurethane foam adhesive, we recommend following a safety program, including wearing proper personal protective (PPE) equipment.



F65251 - CONTRACTOR SAFETY KIT

Personal Protective Equipment (PPE) recommended:











For more information, see the Product Stewardship Guidelines (A14009).





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Polyset Roofing Adhesives are composed of diisocyanate, hydrofluorocarbon blowing agent, and a polyol blend. Read the SDS and instructions carefully before use (www.icpadhesives.com). Wear protective glasses with side shields or goggles, nitrile gloves, and clothing that protects against dermal exposure. Recommend using in a well ventilated area with certified respiratory protection or with a powered air purifying respirator (PAPR). The polyurethane foam adhesive produced from these ingredients will support combustion and may present a fire hazard if exposed to a fire or excessive heat above 240°F (116°C). Refer to each product's TDS for specifications, testing results and other attributes. The customer is ultimately responsible for deciding whether products and associated TDS information are appropriate for customer's use. Refer to the product's SDS, Product Stewardship Guidelines and operating instructions for guidance on the safe and proper application of the product (www.icpadhesives.com). For professional or industrial use only.