



Product Evaluation Report

PER-05006

This Document Published By:

Progressive Engineering Inc.

Initial Listing
September, 2000

Re-Approved
March, 2011

58640 State Road 15
Goshen, Indiana 46528

574-533-0337
www.p-e-i.com

Listed Product

AlphaSeal 5200 Two-Part Polyurethane
Structural Adhesive

Listed For

Alpha Systems Inc.
5120 Beck Drive
Elkhart, IN 46516

Approved Manufacturer

Alpha Systems Inc.
5120 Beck Drive
Elkhart, IN 46516

Progressive Engineering Inc. is an accredited Testing Laboratory and Third Party Quality Control Agency. This **Product Evaluation Report** represents a product that Pei has a follow-up service agreement with. This **Product Evaluation Report** in no way implies warranty for this product or relieves **Alpha Systems Inc** of their liabilities for this product. Pei is accredited to ISO Standard 17020 and 17025. This **PER** is an official document if it is within one year of the initial or renewal date.

Listing Details

AlphaSeal 5200 adhesive is used to attach gypsum board to wood lumber framing in walls and ceilings without the use of mechanical fasteners.

Product Description

AlphaSeal 5200 is a two-part polyurethane structural adhesive system. It is applied by pumping two components at a 1 to 1 volumetric ratio under pressure through heating equipment to produce one continuous bead. The two components are an "A ISO" and a "B Resin". The A ISO is a purchased material and the B Resin is manufactured by Alpha Systems Inc. This adhesive does not off-gas Formaldehyde into the air.

Containers and Storage

The A & B components are shipped in 330 gallon caged totes or in 55 gallon steel drums. Storage of these containers should be in an indoor dry place between 40°F. and 110°F. Unopened containers will have a storage life of up to six months in these conditions.

General Product Use

The gypsum board being used shall meet ASTM C 1396. The lumber is to be kiln dried and graded. Both substrate surfaces shall be clean, dry and free of dust, ice and loose particles and shall have a surface temperature between 50°F. and 105°F. AlphaSeal 5200 adhesive should be applied in an ambient temperature range of 50°F. to 105°F. The adhesive is applied along the intersection of the gypsum and the lumber according to Alpha System's application instructions. The adhesive temperature at the heater block should be between 100°F. and 110°F. After the last bead is applied, the structure shall not be moved for a minimum of two minutes. The structure should stay in the same ambient conditions for the first 24 hours.

AlphaSeal 5200 adhesive can be used on 24" and 16"o.c. framing in the walls and ceiling. The fillet beads produced should measure a **minimum** of 7/8" average on the gypsum and 3/8" average on the framing. A bead should never be greater than 3" in size. The adhesive beads are applied along one side of field framing and along both sides at gypsum seams.

Listing Criteria

1. The AlphaSeal 5200 adhesive shall be applied according to Alpha System's application instructions. A copy of these instructions must be made easily available at the assembly areas.

2. This Listing is for AlphaSeal 5200 to be applied in an indoor manufacturing facility and is not meant to be applied in an outdoor uncontrolled environment.
3. AlphaSeal 5200 adhesive is to be manufactured at the Alpha Systems plant in Elkhart, Indiana following their approved Q.C. program with unannounced inspections by Progressive Engineering Inc.
4. The use of AlphaSeal 5200 adhesive in a fire rated assembly is not addressed in this Listing.
5. A vapor barrier cannot be used between the adhesive and the substrates.
6. AlphaSeal 5200 is to be applied to the back side of standard raw gypsum and is not intended for other gypsums such as foil backed, moisture resistant or water resistant gypsums.
7. Construction of assemblies using AlphaSeal 5200 and their design values should be as described in the following test reports.

Building Code Compliance

2003 IBC	2003 IRC	1999 BOCA National Building Code
2006 IBC	2006 IRC	1997 Uniform Building Code
2009 IBC	2009 IRC	1999 Standard Building Code

Tested to

<i>Pei</i> Standard No. 89-1	<i>Pei</i> Standard No. 94-9	ASTM E 84
<i>Pei</i> Standard No. 93-7	ASTM E 72	UL 1715
<i>Pei</i> Standard No. 93-8	ASTM C 557	

Product Documentation

A MSDS sheet dated 12/4/2006

AlphaSeal 5200 Product usage instructions, not dated

A signed Quality Control Manual dated 1/27/2000

A follow-up Listing & Inspection agreement between *Progressive Engineering Inc.* and *Alpha Systems Inc.*

Opinion Letters dated: 8/17/2000 11/15/2001 10/17/2001

The following is a list of *Pei* test reports for AlphaSeal 5200 Adhesive.

1998-0998	1998-1558	2000-0326	2004-1834
1998-1028	1998-2966	2001-1216	2008-1748
1998-1030	1998-3236	2002-0358	
1998-1032	1999-1208	2004-0607	

The following is a list of **NGC Testing Services** reports for AlphaSeal 5200.

- UL-1715 - Report No. RCB 0307
- UL-1715 - Report No. RCB 0308

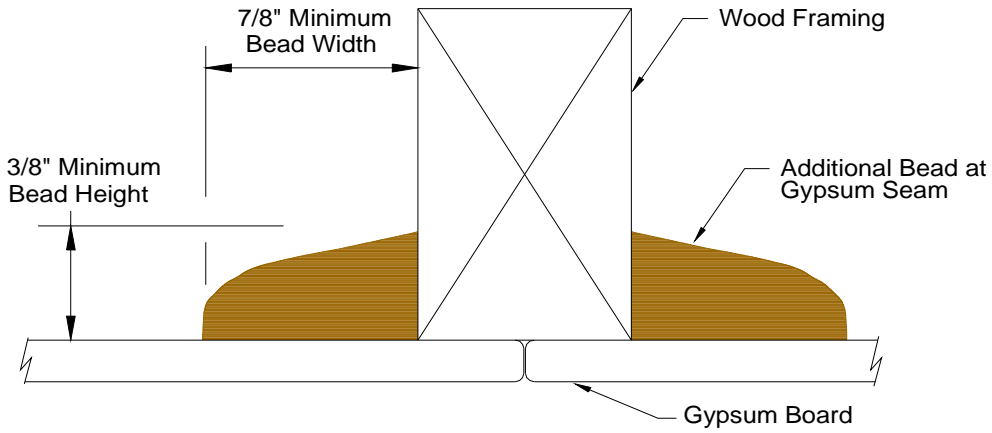
Design Values

Ceiling Diaphragm Design Load = **203 plf** (11'-9" minimum width x 48ft. Maximum diaphragm span)
Ceiling Dead Load Resistance = **15.3 psf**

Product Labeling

Each container shipped of AlphaSeal 5200, that is covered by this PER, must have a label attached with at least the following information:

1. Alpha Systems name and address.
2. Date of manufacture
3. Shelf life information
4. This PER number & Pei's logo
5. Smoke and Flame Spread Ratings
6. Component name



Typical Application



AlphaSeal 5200 is shipped in 275 Gallon Caged Totes or 55 Gallon Steel Drums

