



THANKS for selecting ACRAGLAS GEL

Introduced in 1978, "GEL" has become the most popular bedding compound available, and we guarantee your satisfaction 100%. Investing the time and craftsmanship to "bed" a gun is one of the most rewarding things you can do to improve a rifle's accuracy and consistency.

These instructions will walk you through the process.

The basic "QUICK INSTRUCTIONS" appear to the left of this page, but you'll get the best job possible if you read the "DETAILED" instructions that follow below. There are a lot of "tricks" explained there that will help the job go faster and easier, and avoid potential problems, especially with synthetic stocks.

KIT CONTAINS: 1 jar **ACRAGLAS GEL Resin**; 1 jar **ACRAGLAS GEL Hardener**; 1 jar **ACRAGLAS Release Agent**; 1 pak brown **ACRAGLAS GEL Dye**; 1 pak black **ACRAGLAS GEL Dye**; **ACRAGLAS GEL** measuring Spoon; re-useable Poly Mixing Dish and Mixing Stick.

ACRAGLAS GEL Resin NET WEIGHT: 2 oz./57 g

ACRAGLAS GEL Hardener NET WEIGHT: 2 oz./57 g

RELEASE AGENT NET CONTENTS: $\frac{7}{8}$ oz./21 g

DETAILED BEDDING PROCEDURE

REGARDING THE FOLLOWING INSTRUCTIONS:

These instructions were written assuming you have never epoxy-bedded a gun. For you pros using **ACRAGLAS GEL** for the first time, we'd still suggest a read-through because all bedding products are definitely not the same. If you have any questions, please call our Technical Support staff at 641-623-5401. They are available Monday through Friday, 8:30 am to 4:30 p.m., Central Time.

DISASSEMBLY

Be absolutely certain the gun is unloaded and the magazine or clip is empty. Take the gun completely apart, following the manufacturer's instructions. The bolt has to come out of the action and the barreled action taken out of the stock (do not remove barrel from action). Remove the trigger group, magazine box (if present), scope and/or sights and anything else attached to the action. Barrel-mounted open sights and scope mount bases can normally stay in place.



INLETTING & STOCK PREPARATION

Wooden Stocks:

You'll need $\frac{1}{32}$ " to $\frac{1}{16}$ " clearance between the barreled action and the barrel channel, action recess, and behind the recoil lug. Cut away wood as needed using chisels, scrapers or a miniature grinder. Leave the wood rough, don't sand it smooth - not to increase the strength of the **ACRAGLAS GEL**-to-wood bond, but to add strength to the wood itself by creating more exposed wood surface; getting the most from **ACRAGLAS GEL**'s strength-giving qualities.

Fiberglass or Synthetic Stocks:

Rough up the interior stock surfaces with 220 grit sandpaper to take off any glaze or residual mold release which might prevent **ACRAGLAS GEL** from bonding to the stock material itself. Put on rubber gloves, provide proper ventilation and use **Brownells TCE Cleaner Degreaser**, **Birchwood Casey Gun Scrubber**, acetone or a similar solvent to degrease the interior stock surfaces. Be sure to read the notes **Solvent Caution** and **Bonding To Plastics** under the section **Making The Job Easier**, located at the end of these instructions.

All Stocks:

Run a line of **Brownells Wide Bedding Tape**, **Scotch**, masking or electrical tape along the finished edge of the stock's barrel channel and action cut-out area where they meet the barreled action. Coat the tape with **Release Agent** as explained in **Metal Preparation - Use Of Release Agent**. Not only will this make cleanup easier, it will also make sure that any **ACRAGLAS GEL** that squeezes out during the bedding process won't stick to the stock. Test your tape to make sure its glue doesn't react with your stock finish or pull it off.



METAL PREPARATION - USE OF RELEASE AGENT

In addition to being a specially formulated, powerful bedding epoxy, **ACRAGLAS GEL** is also a superb glue for attaching metal to wood or fiberglass. Using **ACRAGLAS GEL** Release Agent selectively lets **ACRAGLAS GEL** bond to the stock but not to the barreled action.

IMPORTANT: You **MUST** do some things to prevent mechanical "locks" that can connect barreled action and stock permanently. Fill all milled-out sections, openings, pits, recesses and deep machine marks in the barreled action, recoil lug and triggerguard/floorplate with modeling clay. Smooth with scraper to keep



all surfaces flush. Make certain the recoil lug, or any other projection, is not wider at the bottom than at the top. A reverse taper like that can mechanically lock the barreled action into the stock once surrounded by **ACRAGLAS GEL**.

Another mechanical lock is possible if the barreled action rests so deeply in the stock that the edges of the stock are higher than the largest diameter of the barrel or action body. Cover the front, sides and bottom of the recoil lug with a single layer of Brownells Wide Bedding Tape or smooth, electrician's tape. The slight clearance created by the tape will make it easier to remove the barreled action from the stock for cleaning and repair. The rear lug surface transfers recoil energy

to the stock so it must remain uncovered; just fill any pits with modeling clay.

Stir the Release Agent or shake it vigorously before using. Use your finger (wear rubber gloves), a Q-Tip or small paint brush to apply Release Agent to the barreled action. Make sure you get it into all recesses and corners. Apply two or more **THIN** coats of Release Agent on all exposed metal surfaces of the barreled action, triggerguard/floorplate, modeling clay and bedding tape that might contact **ACRAGLAS GEL**. Be sure to cover ALL surfaces and recesses. Let dry thoroughly between coats so carrier evaporates completely. Thick coats will "skin over", trapping unevaporated carrier which may damage bluing/metal. Wait for about 5 minutes, or until the Release Agent is dry to the touch. Hold the barreled action up toward a light and look across all surfaces. You should see a nearly transparent, continuous, vinyl film covering them. If you see any bright reflections or a break in the coating, put more Release Agent on those areas. Give the guard screws and any stock pins a **THIN** coat of gun grease or paste wax after the Release Agent dries on them. Be certain the coat of Release Agent is **THOROUGHLY DRY** before bedding. When the bedding job is done, you can remove Release Agent from both gun and bedding with warm water. If you need to thin the Release Agent, alcohol works well. Gun and Release Agent must be room temperature (68°F.) or higher before beginning the bedding operation.



CAUTION: BEFORE PROCEEDING FARTHER,
MAKE SURE YOUR STOCK IS CLEAN & OIL-FREE

MIXING YOUR ACRAGLAS GEL

ACRAGLAS GEL doesn't have to be mixed all at one time. The mixing ratio is 1-to-1 by volume. **Do Not** weigh the resin and hardener for mixing, you'll get the wrong ratio. The measuring spoon supplied in the kit works well for most bedding applications. For touch ups and smaller jobs, pick up a set of plastic measuring spoons. Note: A tablespoon holds 1/2 ounce volume, a teaspoon holds 1/6 ounce volume. One tablespoon equals three teaspoons. Use a clean mixing stick to ladle **ACRAGLAS GEL** Resin into the measure until it's full. Use the end of the stick to "press" out any voids or air bubbles, make sure the measure is full and slide the stick across the top of the measure to level-off



the Resin. Wipe the stick clean with a paper towel so any excess left on the stick doesn't goof up the mixing ratio and, using the same end, work all the Resin out of your measure and into the mixing dish with a careful "peeling" motion. Scrape the stick on the edge of the mixing dish to get all the Resin possible into the dish. Wipe the measure and the mixing stick clean. Use the other end of the mixing stick to fill and level the measure with **ACRAGLAS GEL** Hardener. Wipe the stick clean and work the Hardener into the mixing dish as you did with the Resin.

Thoroughly mix (do not whip) the Resin and Hardener with the mixing stick for two (2) minutes. At this point you are ready to color the **ACRAGLAS GEL** to match your stock. Use a needle or straight pin to poke a small hole in one corner of the foil dye packet. Squeeze one or two small drops of the concentrated, brown or black dye into the Resin/Hardener mixture. Begin stirring the dye in and check the color. We've found it works best to have the mixed, dyed GEL just a bit lighter than the stock. If the color is too light, add another drop of dye, stir briefly and check the color. The dye is extremely potent and a little goes a long way. Once you have the color right, mix thoroughly for another two (2) minutes, for a total of four (4) minutes.



Always mix a total of FOUR MINUTES whether you add dye or not. Your **ACRAGLAS GEL** is now ready to use.

Time/Temperature Note: At 72°-75° F., you have approximately 25 minutes working time before your **ACRAGLAS GEL** becomes too stiff to use and give a suitable bonding between epoxy and stock. At higher room temperatures the stiffening occurs more rapidly, with proportionate decrease in working time. Working time can be lengthened by setting the mixing dish in a shallow pan of

ice water and stirring the water occasionally.

In cold weather, make sure your **ACRAGLAS GEL** is at least **68° F.** before mixing and spreading. This same minimum temperature must be maintained during hardening as well. In hot conditions, chill **ACRAGLAS GEL** to approximately **76° F.** before mixing to prevent accelerated setup.

To speed up the setting process, you can heat the barreled action and stock until they are just warm to the hand, which will be about **100° - 120° F.**, before putting the **ACRAGLAS GEL** into the stock. For even more rapid setting, place a heat lamp **12" - 18"** away from the area where the **ACRAGLAS GEL** has been applied. **DO NOT** try to speed the setting process by adding extra hardener - doing so will actually *PREVENT* complete hardening.

BEDDING

Wooden Stocks:

Use the mixing stick to scoop out some **ACRAGLAS GEL** and spread it evenly into the stock's front action ring recess, recoil lug recess and rear tang area. Make sure there is good coverage where the rear tang and front receiver ring of the action rest in the stock. Fill the recoil lug recess approximately half full. If you wish to bed the barrel channel of a wooden stock, spread a ridge of **ACRAGLAS GEL** down the barrel channel. As an option, you can use your mixing stick to "paint" the magazine box and trigger group area with a thin coat of **ACRAGLAS GEL** to seal against moisture. If the area already has a protective coat of stock finish, this step isn't necessary. Don't put on a

thick coat or leave any globs in this area. The excess **ACRAGLAS GEL** could create a mechanical lock and trap the barreled action in the stock, or it could fill space needed for the magazine box or trigger group.

Press the stripped barreled action into the stock to the required depth. Usually, this depth will be when the floorplate screws will engage the action. Install the triggerguard and/or floorplate unit. Install the guard screws and snug them down tight. Tightening the screws is a "just enough" but not "too much" process. Too tightly will squeeze the **ACRAGLAS GEL** out; too loosely may keep the action and triggerguard/floorplate from seating fully in the stock.

Synthetic Stocks:

Some of these stocks have a hollow barrel channel, some don't. Either is fine since there's usually no need to have full-length barrel channel-to-barrel contact in a





synthetic stock. But, if you want this contact, follow the directions below covering bedding of the action area and then spread a line of **ACRAGLAS GEL** into the channel, or along the edges of a hollow channel. Don't try to fill a hollow unless you want the extra weight. To bed the action area of a synthetic stock: use the mixing stick to scoop out some **ACRAGLAS GEL** and spread it evenly into the stock's front action ring recess, recoil lug recess and rear tang area. Make sure there is good coverage where the rear tang and front receiver ring of the action rest in the stock. Fill the recoil lug recess approximately half full. Use the mixing stick to distribute **ACRAGLAS GEL** evenly. Press the stripped barreled action into the stock to the required depth and install the triggerguard/floorplate unit. Install the guard screws and snug them down tight. This is a "just enough" but not "too much" process. Too tight can squeeze the **ACRAGLAS GEL** out, too loose may keep the action and triggerguard/floorplate from seating fully in the stock.

CLEANUP

We have two favorite methods to clean up the excess **ACRAGLAS GEL** that often squeezes out onto the stock. First, and easiest, just wipe or scrape the excess away, immediately, with a clean, cotton-tipped applicator or a small scraper made of wood or plastic. Second, wait until the **ACRAGLAS GEL** is firmly set, about 9 hours after application. Then, trim the excess **ACRAGLAS GEL** off with a knife. Be careful, don't scratch the bluing or stock finish. **ACRAGLAS GEL** on your cutting instruments and hands can be removed while still tacky by rubbing with a vinegar-saturated cloth (don't get vinegar on blued steel). You can remove the gun from the stock after 10 hours.

Separating The Stock And Barreled Action:

After the **ACRAGLAS GEL** has cured, take out the action screws, remove the triggerguard/floorplate and clamp the stock, right side up, in a padded vise. Put a wooden dowel into the bolt opening and slowly, firmly, lift both the dowel and the barrel to remove the barreled action from the stock. Don't expect the metal to jump out of the stock, especially a wooden stock which is now fitted more tightly than possible with any other method. If they won't come apart, tap along the length of the barreled action with a soft rubber mallet and try again. Proceed with the firm, slow lifting once the stock and barreled action begin to separate. If you still can't



get the barreled action out, don't force it! Give our Tech Support staff a call and we'll help.

REASSEMBLY

Clean Release Agent residue off the barreled action and stock. Get rid of all bedding tape and modeling clay. Lightly oil all the metal parts, then follow the gun manufacturer's instructions and reassemble the trigger group, magazine box (if applicable) and other parts onto the barreled action. Check the bedding in the magazine and trigger area and remove any excess **ACRAGLAS GEL** with files and sandpaper to get proper clearances. Re-install the barreled action into the stock.

Congratulations! You have just given your gun the finest of accurizing jobs. It can be fired in three days, but giving the **ACRAGLAS GEL** a full week to cure will be much, much better.

TIPS TO MAKE THE JOB EASIER

Storage - Store in a cool place (68°-72° F.). Shelf life of unmixed **ACRAGLAS GEL** components is Fifteen to Twenty years.

Vinegar - Great for cleaning up sticky **ACRAGLAS GEL**, but don't use on blued steel. It is an acid and can dull or remove bluing.

Solvent Caution - Some solvents may react with some synthetic stocks or wood stock finishes. If a synthetic stock has exposed, foam filling, be very careful when using solvents for degreasing. The solvent could actually "melt" the foam. Solvents can also remove the paint used on some synthetic stocks or the finish from a wooden stock. We suggest you test any solvent on a part of the stock that won't show in normal use.

Bonding To Plastics - **ACRAGLAS GEL** "sticks" easily to stocks made from laid up fiberglass, Kevlar™ and graphite cloths which are bonded with epoxy resin. Brown Precision and H.S. Precision brand stocks are examples of this type. **ACRAGLAS GEL** may have problems sticking to some injection-molded, plastic stocks, especially if they contain a high percentage of polypropylene. Six Enterprises, Ramline, Butler Creek, Choate and some factory Remington stocks are made by this process.

Don't worry! You can **ACRAGLAS GEL**-bed these stocks! The trick is to create mechanical locks by making undercuts in the bedding areas. This is the same thing an engraver does when putting gold inlays into a gun, or a dentist does when putting in fillings. Create some undercut grooves in the bedding recesses with a chisel or miniature grinder and drill several small holes at random angles into the bedding surface. Keep the holes small: 1/16" to 1/8" diameter is plenty, and there's no need to go deeper than 1/8" to 1/4". After grooving/drilling, sand and degrease as explained earlier. **ACRAGLAS GEL** will flow into these cuts and holes and mechanically lock itself in place after setup. Give our Tech Staff a call if you have questions.

Another method that will increase epoxy bedding adhesion with injection

molded stocks is to heat the area to be bedded with a propane torch, just prior to applying **ACRAGLAS GEL**. A low flame is all that's needed. Simply warm the area until it becomes slightly softened. Do not overdo this and melt the plastic, and stay away from any small edges that will show on the outside surface of the stock. You may observe the flame turning blue and hear a small, popping sound while you are playing the flame against the surface of the bedding area. This is caused by oil being driven out of the synthetic material and burning off. After heating, and while the bedding area is still warm, immediately apply the **ACRAGLAS GEL**.

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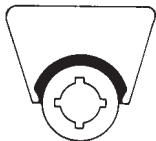
QUICK INSTRUCTIONS

- (1) Take off the scope and rings. Pull the barreled action out of the stock and strip it down to the basic unit.
- (2) Sand and clean the inside of the stock. If there isn't enough clearance, remove stock material to make room.
- (3) Thoroughly clean the barreled action, triggerguard and guard screws to remove any grease or oil. Fill all nooks, crannies, pits and openings with modeling clay. Coat thoroughly with Release Agent. Cover the edges of the stock with tape where they meet the barrel and action. Coat the tape with Release Agent.
- (4) Clamp the stock in a padded bench vise or gun-cleaning vise with the action recess and barrel channel "up".
- (5) Scoop out one, **level** Measuring Spoon full of **ACRAGLAS GEL** Resin, transfer the Resin to the Poly Mixing Dish. Refill the Spoon, level, with **ACRAGLAS GEL** Hardener and add that to the Mixing Dish. Stir Resin and Hardener together, mixing for 4 minutes.
- (6) Scoop out **ACRAGLAS GEL** with the Mixing Stick and "butter" the stock's front action ring recess, recoil lug recess and rear tang area. To bed the barrel channel of a wood stock, pile a ridge of **ACRAGLAS GEL** down the barrel channel.
- (7) Place barreled action into stock, install triggerguard and its screws.
- (8) Wipe away any **ACRAGLAS GEL** that oozes out with a cotton-tipped applicator or small wooden/plastic, scraper. Don't let **ACRAGLAS GEL** ooze up, over and around, the action or barrel. It could trap the metal in the stock.
- (9) Let the **ACRAGLAS GEL** harden for 10 hours.
- (10) Take the barreled action out of the stock and clean off Release Agent, clay and tape from metal, stock, screws and parts.
 - (11) Reassemble the barreled action and reinstall it in the stock.
 - (12) Put the gun to one side for 2½ days before firing. This allows the **ACRAGLAS GEL** to reach maximum hardness.

SKIN-TIGHT
BEDDING JOB

100%
WOOD TO METAL
CONTACT

PROFESSIONAL QUALITY
ACCURIZING/BEDDING
SERVICE KIT



®

EASY TO USE

INSTRUCTIONS & Technique

WARNING: Release agent: FLAMMABLE. IRRITANT. HARMFUL IF SWALLOWED. Resin/Hardener: IRRITANT. CAN CAUSE EYE BURNS. STRONG SENSITIZER. Release Agent contains: Propyl alcohol. Resin contains: Epoxy resin, Alkyl glycidyl ether, Acrylic ester. Hardener contains: Amine blend, Benzyl alcohol, Phenol. Keep away from heat and flames. Prevent contact with eyes and skin. Do not swallow. Wear rubber gloves and eye protection when handling. **FIRST AID:** For eyes: Flush thoroughly with water for at least 15 minutes. Seek medical treatment immediately. For skin: Wash with soap and water. Remove contaminated clothing. For ingestion: Do not induce vomiting. Consult physician or Poison Control Center IMMEDIATELY. **WARNING:** This product contains a chemical known to the State of California to cause cancer.

KEEP OUT OF REACH OF CHILDREN