



"THE FLIGHTLINE"

NEWSLETTER – November 2012

WWW.SKY-KNIGHTS.ORG

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Contest Director: Dale McDonald 503-761-3109

Safety Officers: Russ Redmond 541-948-1092 & Corey Parson 503-558-1884

Club Meetings

October 2012 thru April 2013, club meetings will be held the second Monday of each month at 7:00pm at the Mountainview Christian Church - 1890 N.E. Cleveland Avenue, Gresham, OR. 97030 - **Everyone is welcome!**

ATTENTION ALL CLUB MEMBERS

Voting of the new executive board will be held on November 12th, at the Sky Knight's club meeting.



**Club Breakfast: 7:00am Saturdays - Tollgate Inn,
38100 Highway 26, Sandy OR. 97055**

(Get your morning started and enjoy good fellowship)

Here is an excellent link sent in by: Marshall Smith

Good ideas for Fun Cub owners! The kits are to beef up Fun Cub cowls, allow installation of bigger motors, allow batteries to be clipped in as packs, and provide improved water resistance for those who fly the cubs on floats.

http://morganmill.com/RC/FunCub_Parts.html

The What and How of Adhesives

Cyanoacrylate or **CA** glue has changed the way models are built more than any other advance in modeling technology. In the good ol' days, model cement like Ambroid, Duco, Comet, and Siment were the glues of choice. They all had a strong, unpleasant odor, dried slowly (compared to CA) and became brittle with age. CA, on the other hand, is stronger, works almost instantly, and is bottled in three different viscosities (thicknesses). CA is used for most glue joints, except where epoxy is specified. CA does emit rather strong fumes (some say it's like tear gas) as it cures, so rule number one is to work in a well ventilated area.



In some cases, the instant CA will puddle in a small gap. You can make it cure by dusting it with baking soda. You can even fill small gaps with instant CA by putting some baking soda in the gap and then dripping the glue into it. Don't try to make large fillets, however, because the glue will not penetrate too deeply into the powder, and you'll have a thin shell of solidified glue over a core of baking soda powder. This isn't strong.

CA adhesives are non-toxic, but can release fumes that are irritating to the tissues in the nasal passages and eyes. Some people have strong reactions to this, getting asthma-like symptoms. The fact that the CA glues can harden very quickly in the presence of moisture can cause burns if the glue gets in the mouth or eyes. It's virtually impossible to swallow the glue because it will cure as soon as it gets into the mouth. Because human skin always has some residual moisture on it, CA adhesives will bond skin instantly.

Pro Thin CA is also known as plain CA. This is the instant variety, used for most initial assembly and tack gluing. Thin CA is water-thin instant glue, requires a joint with no gap and will cure within seconds of application. Thin CA is usually "wicked" into the joint by putting a few drops on the seam, then holding the parts together while the CA penetrates and bonds the parts. When gluing plywood or hardwood, a mist of accelerator (see below) will help the CA work.

Pro CA+ is also known as medium or gap filling CA. CA+ is used for surface gluing, filling small gaps between poorly matched parts, and for general purpose applications. It cures slower than thin CA, allowing you to apply a bead to two or three parts before assembly. Also, because it cures slower than thin CA, it penetrates the wood for a stronger bond. Curing time without accelerator is 20 - 30 seconds.

Pro CA- or thick CA is used when extra positioning time is needed. CA- is a great gap filler and is also used to make fillets when a little extra strength is required. Curing time is about 1 - 2 minutes.

Finally, **Pro CA Gel** is the version that has the consistency of hair gel, and has the longest cure time. It's useful where you have to apply the glue and then fit the pieces together.

Accelerator (or activator) is a liquid chemical that comes in a spray bottle or aerosol can for use in speeding up the cure time of all CA types. It should be misted on, not sprayed heavily on the joint. The glue will instantly harden. Accelerator may cause exposed CA to bubble and sometimes change color. A drawback to accelerator is that the CA cures before it has time to fully penetrate the wood, so it should only be used sparingly—when absolutely necessary.



Note: Don't use accelerator on instant CA. It will cure so rapidly that gasses will form in the glue and it will become a hard foam with very little strength.



A word about CA safety - After applying CA, don't stand directly over the work. Avoid the puff of vapors. All CA glues will bond skin almost immediately. If this should happen, **CA Debonder** (available from your hobby dealer) or acetone fingernail polish remover will dissolve the CA if allowed to soak into the bond for a few minutes. Don't use vigorous means to separate a skin bond. In case of eye contact, flush thoroughly with water, then seek medical attention, but don't panic. Please, keep CA (and all other modeling chemicals) out of the reach of children!

Epoxy glues are among the strongest glues used in model building. They will bond a large variety of materials together. They are also very good for laminating wood sheets because they will not cause the wood to curl.

With any glue, you have to make sure you have a coat of glue on both surfaces to be joined. If the coat is too thin, it will be "sucked" into the wood and there will be no glue left between the pieces to bond them together. You must get some "squeeze out" of the glue when you join the pieces together. This insures a good bond.



With epoxies, the longer the cure time, the stronger the joint. This is because longer cure times allow the glue to get good penetration into the pieces being joined. It also allows the molecules in the glue to align better, which gives the joint its strength.

Epoxies can cause skin allergies, so any amount that gets onto the skin should be immediately cleaned off. Use rubbing alcohol for cleanup, followed by a thorough wash with soap and water. It's best to wear latex gloves when using epoxy to avoid getting it on the hands. Skin reaction is cumulative, so you may be able to get away with skin contact of the glue at one time, and then have a reaction at a later time.

Great Planes has two Epoxy formulations available for the modeler. Use them when the joint requires exceptional strength, such as when installing the firewall, when joining the wing panels, and when installing wing hold-down blocks. As with most epoxies, you mix equal parts of resin and hardener, stir well, then apply a thin film to each part. Parts should be clamped, pinned, taped or weighted in place until fully cured. Before the epoxy cures, clean off any excess with a paper towel. A word of caution about mixing epoxy—don't use extra hardener in the hopes of making the mixture harder or work faster. Just about all epoxies work best with exactly a 50/50 mix. When you increase the amount of hardener you run the risk of causing the cured epoxy to become either brittle or rubbery—neither being as strong as a properly mixed batch.

6-Minute epoxy is used for simple, small gluing operations where elaborate alignment is not required. Working time (before it's too gooey to use) is about 5 minutes, handling time 15 minutes, and it's fully cured in about 1 hour.

30-minute epoxy is used for extra strength (because it can penetrate longer) and where several parts must be aligned and checked before it cures. Working time is about 25 minutes, handling time 2 hours, and it's fully cured in 8 hours.

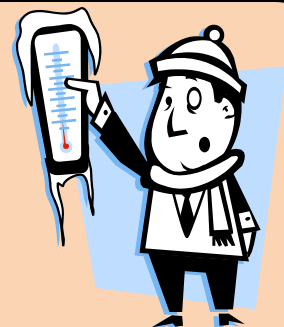


Epoxy Finishing Resin is designed so that it will form a nice, smooth film on the top of wood or cloth. Finishing resins do not have strong molecular links in the cured material, so they are not good at all for using as a general-purpose adhesive. Don't use finishing resin for laminating wood. Finishing resin is good for bonding fiberglass cloth to the model's surface to add strength and make a good surface for paint. Finishing resin is also used inside fuel tank compartments as a fuel-proof coating.

Finishing Resin is mixed 1:1. It's applied with a brush, working it through the cloths's surface. After application, squeegee off any excess resin with an old credit card or stiff cardboard. Allow it to cure overnight. The resin can then be wet sanded and re-coated if needed.

*Please Welcome Our New Member:
Ryan Kruckman*

The club is looking for an outdoor fire pit to be used at the field for those individuals who fly during the cold months. If you have one and are no longer using it, please think about donating it to the club.



Our Club Trainers

Glen Thornton: 503-668-9704(Lead)
Gregg Marshall: 503-789-5488
Mike McKay: 503-630-7112

Dale McDonald: 503-475-3319
Bryan Watts: 971-563-4728
Jim Leissler 541-490-3239

Flying Notices:

Thursdays from November thru March, we will have indoor flying from 6pm-9pm at Mountainview Christian Church - 1890 N.E. Cleveland Avenue, Gresham, OR. 97030 - Cost: \$5.00 per night of flying.

Upcoming Events


November 12th: Executive Board Elections – Held during membership meeting
December 9th: Pearl Harbor Days – Sky Knights field
January 19th: Club Banquet (Details will be coming soon!)

Executive Board Meetings -

November 5th: At Gregg Marshall's
December 3rd: At Sam Bacon's
January 7th: TBA

Please Support These Fine Hobby Stores that Support Our Club

Proctor Enterprises
35900 Industrial Way, Suite 401, Sandy, OR 97055 USA
Phone: (503) 668-8612 Fax: (503) 826-1918
sales@proctor-enterprises.com



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Sandy, OR 97055
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www.rc-hobbies.com/portland




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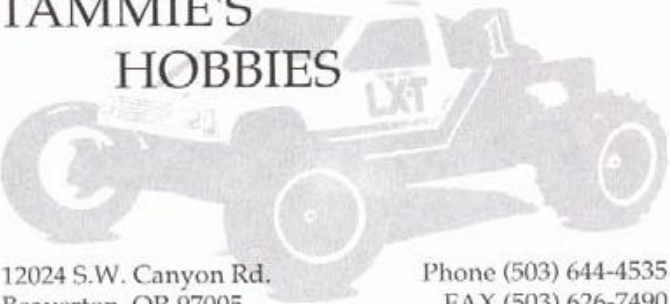
Hours
Mon-Thu 10 to 6
Friday 10 to 7
Saturday 10 to 5
Sunday 12 to 5



Russ Holst
PRESIDENT/CEO

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