Use epoxy to bond the faces of the grains together. We recommend 15 or 30-minute epoxy like “AeroTech’s 30-minute Epoxy” for this process. We recommend the use of disposable gloves during the bonding process.

1) **DRY FIT THE GRAINS** into the liner. If the fit is too tight, peel off the outer glassine layer in order to fit the grains into the liner.

2) **APPLY EPOXY** to one end of the 1st (aft chamfered) and 2nd grains. **NOTE:** The chamfered end of the 1st grain faces the nozzle and is **not** coated with epoxy.

3) **STACK** the 1st and 2nd grains together with the epoxied ends facing each other and the cores in visual alignment. **NOTE:** The chamfered end of the aft (1st) grain should be facing the table surface.

4) **APPLY EPOxy** to the top surface of the 2nd grain.

5) **SLIDE THE LINER** over the two epoxied grains.

6) **INSTALL THE NOZZLE** into the aft (chamfered) end of the liner.
7) **STAND THE LINER ASSEMBLY** on the nozzle. Ensure the nozzle flange is completely seated against the end of the liner.

8) **APPLY EPOXY** to both ends of the 3rd grain.

9) **INSERT THE 3RD GRAIN** into the liner until it is seated against the 2nd grain with their cores in visual alignment.

10) **INSERT A WOODEN DOWEL** into the core until the cores have been aligned. Repeat steps 8 and 9 until you reach the final grain.

11) **APPLY EPOXY** to one end of the final grain.

12) **INSERT THE FINAL GRAIN** with the epoxied end facing the aft (nozzle) end. Wipe off any remaining glue from both the inside and outside of the liner.

13) **PLACE THE GREASED FORWARD SEAL DISK O-RING** into the groove of the forward seal disk.

14) **LIGHTLY GREASE** the inside of the forward end of the liner and install the seal disc assembly.

15) **LET THE GRAIN ASSEMBLY CURE** for about 12 hours.

16) After the faces of the grains have been bonded, assemble the remainder of the motor per the motor assembly instructions.