How to make K-Bond sand

Named for Kent State where it was developed, K-Bond is an almost smokeless oil-bonded foundry sand. Typically, it's used for casting zinc, aluminum, brass, bronze and iron.

What you need:

- 100 lbs. sand 100 mesh or finer
- 6 lbs. bentone clay (such as Bentone 34 or VG-69)
- 3 lbs. synthetic 2 cycle motor oil
- 0.2 lbs. (3.2 fluid oz) Methanol (dry gas)

Mixing:

Mix the sand and bentone clay first (wear a dust mask), then blend in the oil thoroughly. Small batches (less than 10 lb.) can be done by hand with good results, but a muller is preferred. The small batches can be done with a cheap kitchen electric mixer.

Add the alcohol and mix thoroughly.

Tips:

- The sand won't seem like much until the alcohol takes effect and become like stiff cookie dough.
- The sand will be easier to handle the more you use it over time.
- If the sand gets powdery after sitting, mull or warm it before use.
- When green strength starts to fade, add in some alcohol.