Tips on Using Sashco's Kernel Machine & Abrasive Blasting

Media

The Kernel will accept both corn cob and recycled crushed glass media. While other types of media, namely walnut shells and baking soda, have been tested in the Kernel machine, corn cob and glass media are the two that work best and go through the machine problem-free. Sand is definitely not recommended, as it will damage parts of the machine, and can be hazardous to your health (see regulations section below).

MEDIA TYPE	GRIT SIZE	COVERAGE RATES	BEST USES
Corn Cob	20/40	100-150 sq.ft. per bag, possibly more on new, uncoated wood	Coarser grit size. Good at removing most coatings and on new, uncoated wood. Multiple passes may be needed to remove fresh and/or flexible coatings. Not recommended for use on soft woods such as Western Red Cedar, as it could damage the wood.
	40/60	100-150 sq. ft. per bag, possibly more on new, uncoated wood	Finer grit size. Good for use on brittle coatings and new, uncoated wood. Not recommended for use on fresh and/or flexible coatings, as it is relatively ineffective. Not recommended for use on soft woods such as Western Red Cedar, as it could damage the wood.
Recycled Crushed Glass	40/70	75-100 sq. ft. per bag, possibly more on new, uncoated wood	Coarser grit size. Good at removing most any coating, particularly fresh and/or flexible coatings. Also effective on bare, uncoated wood. Special care should be taken when using on softer woods such as Western Red Cedar.
	70/100	75-100 sq. ft. per bag, possibly more on new, uncoated wood	Finer grit size. Good at removing most any coating, particularly fresh and/or flexible coatings. All effective on bare, uncoated wood. Overall best option when blasting softer woods such as Western Red Cedar.

Watch for static electricity when using any size grit, but especially the finer grits and especially when blasting indoors. All grit sizes will raise the grain on the wood, but in general, the coarser the grit, more "fuzzing" and grain raising will be produced. Glass media will leave the least amount of "fuzzing" of all blasting types mentioned.

Regulations

Each state has different regulations on the use of abrasive media. For instance, corn cob media is only regulated based on the nuisance dust it produces. Check each area for the appropriate regulatory measures applicable to the particular media you will be using. Sand media is known to cause silicosis, and there are tight regulatory measures when working with this media.

Equipment

A 250 cfm (cubic foot per minute) compressor is ideal for running the Kernel at constant pressure. However, anything 175+ cfm will be sufficient when a 250 cfm unit is not available. Adjust the choke valve and the media valve to get a constant (not sputtering) flow. When it is running properly, the media will slightly discolor the air flowing from the nozzle. With the compressor running, open the valve at the base of the moisture separator until you hear air hissing out of it. Watch to see that water is dripping out of the open valve. You might need to open this valve more when working under humid conditions.

Tips on Using Sashco's Kernel Machine & Abrasive Blasting

Technique

Spray the wood like you would when spraying paint. Keep a constant distance from the wood, and keep moving to avoid cutting into the wood. "Feather" the spray in and out of areas to keep a constant look. Always test an inconspicuous area to practice and master the technique before starting.

General Tips

While both corn cob and recycled crushed glass media are very gentle, even small contaminants or the occasional maverick piece that is larger than normal can etch windows and other fixtures. Therefore, it is recommended that you mask off everything that needs to be protected (glass, light fixtures, etc.) prior to blasting with all media.

A good technique is to have one person waiting to fill the pot while another runs the machine. Take turns at each job so you are not tiring out too quickly.

Clean off the brass media filter every 5 bags (less if it is humid, more if it is dry). It would be wise to have some filters on hand in case it needs replacement on the job site.

When finished blasting, close the media valve and blast any residue out of the checks and joints, away from the home. Both corn cob and recylced crushed glass media can be picked up with a good shop vacuum and the material can be re-used if filtered to get rid of removed coatings and/or debris. Shake the material through a standard window screen to filter it.

Corn cob media won't hurt the foliage in small quantities, but if mounds are left on the ground or grass, the media can absorb the moisture meant for greenery and begin to grow mold and mildew, so large amounts should be removed and thrown away. Small amounts of glass media left on the ground won't cause any problems with surrounding foliage, either; however, large piles should be removed and thrown away. Recycled crushed glass media will not grow mold or mildew, which is an advantage for those with upper respiratory concerns.

Extras You Will Need:

- Ear plugs
- Leather gloves
- 2 pipe wrenches
- 2 crescent wrenches
- Small brush
- Bullard Powered Air-Purifying Respirator System (or equivalent)
- Battery charger for respirator
- Spare battery for Bullard respirator