

Rubber Contacts



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Recently, I have been attempting to get some rubberized pellet information together. Great news that the AAC BOD who have voted to allow this surface for agility. My experience as a licenced Auto-body technician, as a builder of agility equipment and my AAC involvement, in conjunction with extensive recent research via the internet and product suppliers have provided the following findings to date!

This report is an information source and may be subject to further amendments pending testing results. It is not intended to take precedent over any claims of any manufacturer of any product in any way. Always default to manufacturers directions and statements of fact.

Performance:

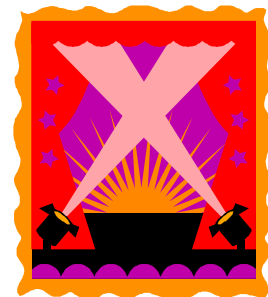
1/Generally, the coating of the dog-walk and A-frame have resulted in increased traction, a more cushioned surface and a much quieter performance. There have not been major reported problems or issues for dogs going back and forth from rubber to regular sand/paint.

2/Generally, the teeter has been considered by many to not be coated with pellets as the increased traction has been noted to create performance issues with "very fast teeter" performance where "sliding" needs to be taken into consideration. This may be the exception and not the rule.

Rating the Surface:

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As the current acceptable traction for contacts in the AAC has to be deemed safe by the equipment approver for a club and again by the judge working at the trial, the guidelines in essence need to be the same (ie unchanged). This means that an equal application of material that creates traction to provide safe, adequate footing for dogs in both dry and wet environments.

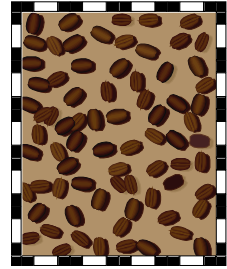


Material Types of Rubber Pellets:

1/Recycled tires are re-ground and filtered tires which claim 99% pure rubber in the end pellet product. This leaves 1% steel filings in the final product. Although predominantly black in its pure form, steps have been made to colour the pellets.

2/EPDM (Ethylene Propylene Diene Monomer) is a purely coloured virgin chip or pellet. These to date have been the most common pellets used. Colours are tested to be UV resistant with some colours like bright red proving to be the most impacted by fading with increased exposure to UV radiation. EPDM is durable and long lasting.

3/TPV (Thermoplastic vulcanizates) is a denser more durable pellet. This appears to be the pellet of choice. Colour Pigments are the same as EPDM with the same UV expectations. Less prone to wear areas over time due to the adhesion qualities of the pellet and binder. TPV must be fully encased in the binder to be effective.



Application:

The application of rubber contacts is in its simplest form a layer of binder/glue used to hold a layer of pellets. Clean surface preparation is followed by applying a thin layer of binder glue to the surface preferably in one application per panel (may require two people) Rubber pellets are spread or sprinkled over glue in a layer. Moderate pressure is applied to the pellets to press the pellets into the binder/glue, such as pushing on pellets with a flat piece of plywood, a length of 1X10 or a 2 X6. Turn over panel and lightly shake excess pellets off of panel. Reapply a second lighter layer of pellets and repress. Shake off excess. Let stand to cure.

Amounts of Pellets needed:

It will take approximately 4 pounds of pellets for a 12 foot dog walk or teeter panel. It will take approximately 9 pounds of pellets for a 9 foot Aframe panel.



Binders (glue):

Most pellet binders have been specifically formulated by Dow Chemical specifically made to adhere to almost any base material (wood or aluminum) and the rubber pellets of choice. It is commonly a **one-component moisture cured binder** which means the following. You do not need to mix a and b parts to initiate hardening. Heat accelerates the drying and curing time. Humidity accelerates the drying and curing time. (this is not a typo, by spraying water vapour over a freshly applied product, it will speed up the drying and curing time, especially in a heated environment) Full cure is approximately 10 days under normal conditions although the glue may dry in 4 to 6 hours. Apply the binder thinly as it swells into the pellets as it cures. Excessive binder may froth up through the pellets

as it cures.

Over new wood:

New wood is recommended to not use primer or paint before coating. A film coat of Trem-Clad paint may be sprayed on the wood surface to allow some colour to be on the wood. Make sure the wood is thoroughly dried from your wood supplier. Wet wood may incur blistering or peeling of either paint/sand or rubber pellet product.

A chemical reaction of standard freshly painted/primed material will occur with the binder which may cause blistering of the finished product.



Over old surface:

The binder/glue especially made for EPDM pellets is made to fully bond with the product. If your existing contact material is in good condition and fully cured and has sand embedded into the paint, a thorough cleaning with warm water, cleaning agent, and a scrub brush is highly recommended. Rinse off thoroughly. Pressure washing may also be used, but additional cleaning with a cleaning agent may still be a good option. Apply the binder/glue over the clean surface as directed.



Over very old surface with blisters or paint peel:

Consider re-applying new wood and primer to the contact piece to ensure a long life of your rubber contact material. If you need to work with your original wood, you can sandblast or grind effected areas down with a hand grinder with a 24 grit grinding pad to take down the old surface quickly. Feather edge your working areas. Clean all areas thoroughly and apply the rubber surface as directed.



Applying over solid aluminum: (Process still under P&R)

Apply an aluminum zinc oxide primer as directed on panel. Spray on a dust coat of colour Trem-clad paint. Apply rubber surface as directed.

I would suggest to “etch” the aluminum with a 24 grit grinder to allow what is known as a “mechanical bond” The binder will harden in the scratches of the grinder and allow a much stronger bond.

Preventative Measures:

Thoroughly mask off ALL areas you don't want glued. It sticks like you won't believe. Lay out a large ground sheet or old tarp for any spillage of binder or pellets! Wear thick rubber gloves to work with material. Be prepared to throw your mixing equipment, gloves and stir sticks away after using. **Don't scratch your face, eyes or nose!** Buy an automotive body-shop grade of masking tape to tape off areas you don't want glued. Econo-tape is known for tearing into little annoying pieces when removing it. Double up on paper you are using to mask of areas of surface you want protected,... especially if you are using newspaper (it is very thin and will soak materials easily)



Hazardous Material:



The majority of the companies selling the recommended binder/glue sell an aquaous based product and is not classed as hazardous for shipping puposes. (Check with manufacturer of choice). The pellets are definitely not classed as hazardous. As with any substance, use in a well ventilated area.

Ultra Violet (sun radiation):

Pellets are usually advertised to be uv resilient (bright red colours fall into a lesser degree of uv resilience) Any element exposed to constant UV radiation will eventually be impacted and caution should be taken to prevent this for long term exposure.



Water Resistant:

Yes. The cured binder is fully waterproof.

Freezing:

The product has been tested to withstand below zero temperatures.



Cleanability:

Recommended to use warm detergent and water with a scrub brush or broom. (My favorited mix of cleaning solution is a diluted mix of Tide (clothes detergent), dish detergent, and some Mr. Clean.)



Reported Problems:

Wear areas have been reported at impact point of A-frames and Dog-walks. This statement is beyond verification at this time as it is likely that one of the many variables listed above may not have been met,... or the application process was not performed correctly,... or the curing time was not met properly before use,... or the product was applied over fresh uncured paint,... or the glue used was not compatible with EPDM. The general feedback for usage is generally that it is really tough and shows little/no visible signs of wear even after high training use.



Guarantees: The manufacturers will guarantee their product to perform as per their specifications. Use of rubber pellets for agility equipment have been somewhat recent by most standards and of course no supplier of product can guarantee against peeling, fading, cracking, blistering, fading, or wearing as there are very many variables as listed above to impact the finished product. I am not aware of any available testing for agility equipment performed to date. (although I intend to do so shortly)

Slats:

Until enough testing and feedback is done for the AAC to consider removing slats completely from the A-frame, slats will remain a needed component. There is a supplier that provides a rubber slat that will adhere to the binder/glue and comes close to AAC standards. An extra layer of binder and pellets can be applied to “make” a slat. Meanwhile, applying the standard wood strips will be our available option. Although this kind of defeats the purpose of applying a softer traction surface while leaving the potentially toe-stubbing wooden slats on the panels, it is as of now a transition item. Wooden slats can be applied with the binder and then re-coated with more binder and have the rubber slats applied to the top of the wood slats.



Slats were first introduced to assist mini dogs to be able to jump from slat to slat to ascend the 6’3” A-frame in days gone by. With the lower competition A-Frame, I think slats may need to be reconsidered as part of the obstacle construction standards if rubber coating is used. At any rate, it appears that rubber strips may be available in some form, from the information my sales rep has provided for me so far.



Re-coating:

Sometimes some dirt surfaces on contacts display a ground in stain that simply will not clean with a pressure washer or a scrubbing. I have seen references that rubberized paint that may work. A recoating of rubber pellets may be another option with an available sprayed on top-coat of binder.

Suppliers:

I currently have 7 supplier’s websites that have pellets of some sort available. As most of these are in the USA, it currently brings up some special considerations for making product readily available in Canada.

1/Any product imported from the USA is subject to an initial shipping fee as well as a **Broker Fee** to clear the product through the border. This **Broker fee** is substantial and is based on price of product purchased.

2/ Shipping costs of this fairly heavy product need to be considered. The pellets and binder may be somewhat heavy and most companies will only sell in bulk. (**not all of them though**)

3/ Prices are in American \$\$\$.



Closing:

The above information has been provided with the assistance of many agility peers from across Canada and the USA. I thank you all. As the product is relatively new to agility, extensive testing could not and has not been done as yet. I have completed critical testing and have recorded the data. On the same note, I cannot profess to be the authority of Rubber Pellets or it's application. Refer to your manufacturers instructions by default. The bottom line is that the product, in my opinion, is dynamic and has stood the test of time, wear and tear on several known instances under heavy use and environmental exposure. I believe that it is good for agility in general. I hope this information has been informative. If technology is allowing us to introduce a safer training and trialling environment for our dogs, then I, for one, am all for it!



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