POLY-TUFF SYSTEMS INTERNATIONAL

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POLYTUFF FREQUENTLY ASKED QUESTIONS

Deck Coatings

Primers:

1. **What primer should I use on metal or metal flashings?**
   Answer: PolyTuff recommends Super Seal Tape rather than primer on all metal flashings. No mechanical abrading is necessary on metal with the use of Super Seal (SS) Tape. PolyTuff recommends only Enviro-Grip #1 or Enviro-Grip #2 primer for metal surfaces after they have been heavily mechanically abraded.
2. **What is SS Tape?**
   Answer: Super Seal (SS) Tape is a 7 mil polyester fabric with a non-bitumen, non-asphaltic adhesive that has excellent adhesion to non-abraded, clean copper, galvanized aluminum and stainless steel metals. The SS Tape saves the contractor from the laborious mechanical abrading and industry confusing application instructions regarding metal surfaces. With SS Tape, the metal is simply clean and dry and the tape adhered to the metal wherever the coating will be applied. There is no drying time, no curing time between SS Tape application and coating application. The SS Tape will allow the saturation of the polyester fabric and homogenization of the coating and the tape for a secure bond to a wide range of metals, without primer and abrading.

3. **Does the SS Tape need to be coated?**
   Answer: Super Seal Tape should always be coated.

4. **Does the metal need to be mechanically abraded?**
   Answer: All metal not treated with Super Seal Tape needs to be heavy mechanically abraded to white metal and sufficiently roughened to the point of 100% abrasion wheel telegraphing unto the metal.

5. **When do I use Enviro-Grip Primer #1 ?**
   Answer: Primer #1 may be used when a low odor primer is necessary or when extra penetration of the substrate is desired.

6. **When do I use Primer #2?**
   Answer: Enviro-Grip Primer #2 is used in Parking Garage deck coating applications where some odor is not prohibited.

7. **When do I use Primer #5?**

   Answer: Enviro-Grip Primer #5 is used on balcony, breezeway and concrete surfaces when a single component primer is desired and fast curing. The primer may be fast cured with the help of the P-Tuff Catalyst vial. Use small amounts first if attempting to speed the cure of the primer. Enviro-Grip #5 primer is not acceptable for parking garage deck coating applications.

8. **How long do I wait for primer to dry?**

   Answer: Primers are dependent upon humidity, temperature and wind. Always use the "thumbprint tacky" test rather than time. Make sure there are no puddles. When the primer leaves a thumbprint impression without transferring to the primer to the thumb, it is "thumbprint tacky".

9. **When do I have to re-prime the surface?**

   Answer: All primed and coated surfaces that are allowed to glaze over and become tacky free may be required to re-prime. Depending on the temperature and humidity, it may only be necessary to solvent wipe the surface. Contact PSI for further instructions. Deck Coating applications where the aggregate has been broadcast to refusal and the aggregate has not be top coated, generally does not need primer unless the aggregate has been worn off or the surface is dirty. Contact PSI for further instructions.

P-Tuff Classic and E-Tuff 100 (water catalyzed base coats)

1. **How long does it take for the base coat to dry?**

   Answer: The P-Tuff Classic or E-Tuff 100 will generally dry between 2-6 hours. Generally, after 45 minutes to 1 hour, it must be covered in aggregate to avoid priming the surface. If the aggregate is broadcast to refusal, it can remain uncoated for several months during a "construction phase". PolyTuff always recommends broadcasting aggregate to refusal while the coating is thumbprint tacky. Thumbprint tacky stage of the coating may last from 45 minutes to 90 minutes depending on the temperature and catalyst used. Sun, temperature and humidity all affect cure times.

2. **Do I have to throw sand to refusal on the base coat?**

   Answer: Polytuff always recommends that aggregates or flakes of some nature are broadcast to refusal in the base coat. The aggregates and flakes will not sink into the coating, if they are broadcast while the coating is still tacky.

3. **What if I don't throw sand on the base coat?**

   Answer: If one does not broadcast sand onto the water-catalyzed base coat, I will become necessary prime the surface and there is a risk of inter-coat adhesion failure. PolyTuff always recommends broadcasting aggregate or flakes on top of the tacky basecoat.

4. **What if I don't add water to the base coat?**

   Answer: It is always recommended that the contractor mix 25% water with the P-Tuff Classic or E-Tuff 100 base coat. Otherwise, the coating will cure slowly with a risk of gassing or bubbling.

5. **What's the difference between P-Tuff Classic and E-Tuff 100?**

   Answer: E-Tuff 100 is a patented technology and the latest in technology of water catalyzed polyurethane and is TDI free. It is the greener and safer of all the water-catalyzed coatings in the industry.

6. **Do I have to use catalyst**?

   Answer: No, it is not necessary to use the catalyst vial with the E-Tuff 100 or P-Tuff Classic. However, if speeding the curing of either of the coatings is desirable, it is recommended to use the catalyst vial. Always start with a ½ vial and use more as necessary. It is not recommended that an excess of 4 vials per 5 gallon pail without consulting PolyTuff.

7. **What is that pink or green vial that comes with the 5 gallon pail?**

   Answer: the pink vial comes with P-Tuff Classic and the green vial comes with E-Tuff 100.

8. **What is the mixing difference between P-Tuff Classic and E-Tuff 100.**

   Answer: The mixing procedures are exactly the same including mixing of the related sand slurries.

9. **What base coat should I use in cold weather applications below 40F?**

   Answer: For exceptionally fast curing times 15minutes -1hour cures and for low temperature applications use the hand mixed and hand applied B-Tuff 306, B-Tuff 308, or B-Tuff 5600.

10. **What products do I use for low odor interior and exterior applications?**

    Answer: Use only Enviro-Grip #1 primer with a choice of P-Tuff Classic, E-Tuff-100, B-Tuff 306 or B-Tuff 308 base coats. Only use B-Tuff 5600 or Stain-Tuff 3072, or Stain-Tuff 3000 for the top coat.

11. **Does PolyTuff manufacture base coats and top coats that meet the SCAQMD requirements of under 100 VOC?**

    Answer: Yes, PSI has a wide range of Low VOC base coats and top coats. The base coats are: E-Tuff 100 and P-Tuff Classic (water catalyzed base coats) and B-Tuff 306, B-Tuff 308, B-Tuff 5600 non-watercatalyzed base coats.

    The under 100 VOC top coats are: Topshield EST-SC, Topshield ARSF (aromatic), B-Tuff 5600, and Stain-Tuff 3000.

Top Coats

1. **Does Topshield come in clear?**

   Answer: Yes, Topshield EST does come and clear. Clear topcoats should be applied in thin mils not to be applied in less than 110 square feet p/gallon. It is permissible to thin the Topshield EST Clear with Xylene or Acetone not to exceed 2 quarts p/5 gallon pail without consulting PSI. *Whenever clear topcoats are being used over aggregates or flakes it is recommended that B-Tuff 306 is used as the base coat.*

2. **When can I use Topshield AR**

   Answer: The Topshield AR may be used in its designated colors on exterior balcony, breezeway and parking deck applications.

3. **Does "AR" mean it is affected by U.V**.

   Answer: AR means it is an aromatic coating and may be subject to color fading. With PolyTuff coatings does not mean that the coating will deteriorate in exposure to U.V. Aromatic coatings can be very stable with exception to some color fading. Some colors are worse than others, therefore, there is a limited color range in Topshield AR.

4. **Why Topshield ALP-150?**

   Answer: Topshield ALP-150 may be used as a more economical topcoat or when a water-curable top coat is desired in dry climates.

5. **When should I not use ALP-150?**

   Answer: Topshield ALP-150 should not be used on parking garage deck coating applications.

6. **What is Topshield EST Tint Base?**

   Answer: Topshield EST Tint Base is a tint base for the PolyTuff color pack system. The Tint Base allows for the stocking of a single top coat and many colors with color pack. Brick Red is not available in the color pack system and therefore is only available in pre-tinted basecoat cans.

7. **What colors are available color packs?**

   Answer: All colors on the PolyTuff Color Chart with exception of Brick Red.

8. **Can I use other manufacturer's color packs?**

   Answer: It is generally not recommended. Other manufacturers may use catalysts or other incompatible components in their color packs.

9. **Can I dilute Topshield EST with solvent?**

   Answer: Topshield EST may be diluted up to 2 quarts with xylene or acetone to a 5 gallon pail of coating.

10. **Where is B-Tuff 5600 used?**

Answer: B-Tuff 5600 is a high solids two component polyurea and is used at the fast curing, extremely durable and tough top coat that can generally take the place of intermediate and top coat in 1 application. The standard colors are available but generally not in stock with exception of Medium Gray.

11. Where are polyaspartic top coats used?

Answer: polyaspartic coatings are moisture cure and 2 component fast curing and generally much harder top coats.

12. What are PolyTuff's Polyaspartic top coats and why are they better?

Answer: Stain-tuff 3072 and Stain-tuff 3000. The PolyTuff polyaspartic coating are exceptional in the coating industry in that while they have the same fast curing and durable characteristics they also have excellent elongation properties.

Polyaspartic – Stain-Tuff 3072 and 3000

a. What the difference between a "polyaspartic" and a standard urethane?

Answer: Polyapartic coatings cure faster in cold temperatures and are harder surface coatings.

b. Does 3072 and/or 3000 come in clear?

Answer: Both Stain-tuff 3072 and Stain-Tuff 3000 are available in clear. The Stain-Tuff 3000 has very short pot-life times, usually under 20 minutes and machine mixing and application is recommended. Stain-Tuff 3072 has a longer pot-life and is able to be hand mixed and hand applied. *Whenever clear topcoats are being used over aggregates or flakes it is recommended that the U.V. stable B-Tuff-306 is used as the base coat.*

<u>Repairing Deck Coatings:</u>

13. What if there are trowel marks left in the base coat or sand slurry?

Answer: When applying the base coat, if the trowel marks are noticed. before during the base coat application, they can generally be floated out or diminished by broadcasting sand into the trowel hump and the sand will sink into the base coat and cause the base coat to rise and self-level around the area. Warning: too much troweling my only agitate the problem. If trowel marks are observed after the base coat has gelled, it is likely the trowel mark area will need to be mechanically abraded down.

If the sand broadcast has been applied, it is generally necessary to cap or skim coat the existing sand broadcast after the trowel marks have been mechanically abraded and another sand broadcast applied to the deck to give the deck a uniform appearance.

14. What if there are pinholes or tiny bubbles in my base coat?

Answer: tiny bubbles are usually a sign of air being mixed into the coating during the mixing process. These tiny bubbles can be reduced by

keeping the mixing blade below the coating while mixing and by not creating a mixing vortex during mixing. If the bubbles are noticed during the application process, throwing small amounts of sand upon the bubbles will generally burst or pop the bubble and they do not reoccur.

Pinholes occur if the mixing bubbles are allowed to break on their own while the coating is curing. It is generally necessary to recoat the deck or area to remove them. Thus, it is always better to break the bubbles during the application process.

Sand and Aggregates

1. **What Sand should I use for traffic deck coating?**
   Answer: The size and kind of aggregate chosen for vehicular traffic deck coatings is extremely important. Only 16-30 mesh silica sand or aluminum oxide should be used in conjunction with the PolyTuff Traffic Deck Coatings unless otherwise authorized by PSI.

2. **What sand should I use for pedestrian deck coating?**
   Answer: Pedestrian coating applications should use only 20-40 mesh silica or quartz aggregates for pedestrian applications unless otherwise authorized by PSI. *Whenever clear topcoats are being used over aggregates or flakes it is recommended that the U.V. stable B-Tuff 306 is used as the base coat.*

3. **Is Home Depot Sand okay?**
   Answer: Home Depot sand is generally not acceptable for any PolyTuff deck coating applications because they are generally too small or too large and are unclean or dirty.

4. **Why is size important?**
   Answer: The size of aggregate is important because too large an aggregate will pop out and create large cavities in the coating and reduce the wear resistance of the coating. Aggregates, that are too small may create a slip hazard on the coating when wet and also reduce the wear resistance of the coating.

5. **Can I use sand or colored quartz under a clear topcoat?**
   Answer: Sand granules should be tested before being applied under a PolyTuff Clear Coating. It is acceptable to use colored flake and colored quartz aggregates under the PSI Topshield EST or Stain-Tuff 3072 and Stain-Tuff 3000 top coats. *Whenever clear topcoats are being used over aggregates or flakes it is recommended that U.V. stable B-Tuff 306 is used as the base coat. Always conduct a mock up before starting work on a deck to test for aesthetic results.*

6. **Will Topshield Accelerator significantly reduce or speed the cure times?**
   Answer: The Topshield Accelerator will significantly reduce the cure time of the Topshield Top Coat. Up to 2 quarts may be used with every 5

gallon pail. Thus, most of the time a complete deck coating system may be installed in 1 day between the hours of 8am and 5pm in temperatures above 70F.

Systems Questions

1. **What system is most economical for parking garage deck coating applications?**
   Answer: Flexideck P-PD is the most economical system for parking garage deck coating applications.

2. **What system is the best for Plywood?**
   Answer: Beyond any doubt the Flexideck E-ML or Flexideck P-ML is the most durable and stable of all systems for plywood. The Metal Lath is utilized to give structural stability for the plywood deck, while the E-Tuff 100 or P-Tuff Classic sand slurry supplies an elastomeric waterproof dense coating with a variety of decorative finishes from tile, faux tile and color coat finishes.

3. **What system is the most economical for concrete decks?**
   Answer: The Flexideck C-WD is the most economical of all the Polytuff Systems for concrete balconies and breezeway applications. All of the Flexideck Systems are capable of providing slope to drain and pond free decks.

PolyTuff Systems, International makes available a wide range of videos on a flash drive for your review along with short picture guides for the systems in an effort to assist the contractor for a successful application. All the data sheets, videos, details and short forms should be considered for educational and instructional purposes. As always, please feel free to contact PSI at 866.977.8833 with any other questions or request available resources.

We appreciate your consideration of the PolyTuff Systems, International products.

Sincerely,

Bob Clanton
National Sales Manager