

X-PHALT™ B120 Technical Data Sheet & Installation Guide



X-PHALT is a trowel grade, rapid repair cement mortar which adheres exceptionally well to both Asphalt-based and Portland cement-based substrates, forming strong chemical and mechanical permanent bonds. Normal application temperatures extend from 40F up to 100 F. At 20°F, unprotected final set times can be as long as 8 hours with return to service dependent on ensuing temperatures.

Features & Benefits:

- 2 hour return to service for vehicle traffic, approximately 1 hour for foot
- 20-30 minutes working time
- Application thickness ranges from feather edge up to full depth.
- Compressive strength over 4000 psi within 24 hours and over 7500 psi at full cure
- Acceptable for indoor and outdoor applications, including direct sunlight
- Natural color is tan to blend with existing concrete; also available in gray upon request to blend with existing asphalt pavement, extendable up to 30% with 3/8” stone
- Asphalt or concrete repair system for potholes, trench cuts, and depressions
- Cement overlay for asphalt surfaces

Product Details:

Packaging ~0.41 cu.ft./unit	47.25 lb. bags, 50 per pallet 47.25 lb. 5-gal pails, 36 per pallet
Color	gray/ tan; dark gray available on request
Mix ratio	3 quarts (6.25 lbs.) water per 47.25 lb. unit
Density, cured (ASTM C138)	110 – 120 lbs./ cu. Ft.
Application temperatures	20 ⁰ F to 100 ⁰ F
Compressive Strength, (ASTM C109)	1 hr. after placement > 1,800 psi 2 hrs. after placement >2,500 psi 24 hrs. after placement > 4,000 psi 28 days after placement > 7,500 psi
Flexural Strength, (ASTM C78)	>1,000 psi after full cure
Slant Shear Bond Strength, (ASTM C882)	Failure occurs in asphalt substrate, not in X-PHALT. Asphalt adheres to X-PHALT at interface.
Split Tensile Strength, (ASTM C496)	Composite specimen fails in asphalt layer with asphalt still adhered to X-PHALT
Length Change, (ASTM C157)	<0.037 % at 28 days
Water absorption, (ASTM C413)	Pending
Freeze – Thaw Resistance ASTM C91	Pass: 12% air content (specification: minimum 8%, maximum 19%)
NYS DOT TM302-3P	Pass: 0.7% weight loss at 25 cycles (6% max weight loss)
Rapid Chloride Permeability ASTM D1202	227 Coulombs (Max – 1,000)

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Target area substrate must be free of loose debris, dirt, dust, or anything that would act as a bond breaker at the interface. Thoroughly clean profiled area by air or water-blasting. All concrete host surfaces must be saturated surface dry (SSD) but with no standing water, immediately prior to application. Target area can be saw cut smooth or broken/irregular surface. Asphalt host surfaces need to be free of standing water, loose debris, dust, or anything that would act as a bond breaker.

Mixing Instructions:

1. Place 3 quarts of water into a clean 5-gallon plastic bucket. Using a quad mixing blade and an electric drill (5 amp minimum and 750 rpm)
2. Pour ½ of the contents of the 47.25 # bag into the mix water in a 5-gallon pail. Using an electric drill (minimum 5 amp, 850 rpm) and quad mixing paddle, rapidly blend the water/powder mixture to a uniform slurry.
3. Quickly add in the remainder of the 47.25 # bag and continue to mix for approximately 3 minutes. While mixing, move the drill blade around in the pail sides to be sure all dry powders and clumps are integrated smoothly into the slurry.
4. Clean up tools with water, dispose of excess material according to federal, state, and local regulations.

Installation Notes:

Immediately after mixing, pour the contents of the bucket into the application area to be repaired. Using a metal trowel, consolidate the wet cement into the area, ensuring good contact is made between the repair cement and the target area surfaces. Consolidate and finish with standard cementitious mortar & concrete practices. Surface may accept a screeded, troweled, or tined finish as desired.

For colder ambient temperatures, use warm water to help achieve desired set times, similarly use chilled water at higher ambient temperatures.

Storage:

X-PHALT should be stored in sealed bags, between temperatures 50-90°F in a dry environment.

Safety Precautions:

WARNING: DO NOT BREATHE DUST. AVOID CONTACT WITH SKIN AND EYES. Use material in well-ventilated areas only. Exposure to cement dust may irritate eyes, nose, throat, and the upper respiratory system/lungs. Silica exposure by inhalation may result in the development of lung injuries and pulmonary diseases, including silicosis and lung cancer. Seek medical treatment if you experience difficulty breathing while using this product. The use of a NIOSH/MSHA-approved respirator (P-, N- or R-95) is recommended to minimize inhalation of cement dust. Eat and drink only in dust-free areas to avoid ingesting cement dust. Skin contact with dry material or wet mixtures may result in bodily injury ranging from moderate irritation and thickening/cracking of skin to severe skin damage from chemical burns. If irritation or burning occurs, seek medical treatment. Protect eyes with goggles or safety glasses with side shields. Cover skin with protective clothing. Use chemical resistant gloves and waterproof

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boots. In case of skin contact with cement dust, immediately wash off dust with soap and water to avoid skin damage. In case of skin contact with wet cement, wash exposed skin areas with cold running water as soon as possible. In case of eye contact with cement dust, flush immediately and repeatedly with clean water, and consult a physician. If wet cement splashes into eyes, rinse eyes with clean water for at least 15 minutes and go to the hospital for further treatment.

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WARRANTY

All products manufactured by us are warranted to be first class material and free from defects in material and workmanship. Liability under this warranty is limited to the net purchase price of any such products proven defective, or, at our option to the repair or replacement of said products upon their return to us transportation prepaid. All claims hereunder on defective products must be made in writing within 30 days after the receipt of such products in your plant and prior to further processing or combining with other materials and products. WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE SUITABILITY OF ANY OF OUR PRODUCTS FOR ANY PARTICULAR USE, AND WE SHALL NOT BE SUBJECT TO LIABILITY FROM ANY DAMAGES RESULTING FROM THEIR USE IN OPERATIONS NOT UNDER OUR DIRECT CONTROL. THIS WARRANTY IS EXCLUSIVE OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND NO REPRESENTATIVE OF OURS OR ANY OTHER PERSON IS AUTHORIZED TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF OUR PRODUCTS. THIS WARRANTY DOES NOT COVER DAMAGE DUE TO PHYSICAL IMPACTS, FAILURE TO FOLLOW RECOMMENDED PRACTICES, FORCE MAJURE, ACTS OF GOD, OR ANY OTHER CAUSE OUTSIDE OF K&S MATERIALS LLC.'S KNOWLEDGE.