

SPEED STEEL 110S

Technical Data Sheet



ATLAS
POLYMERS

MATERIAL DESCRIPTION

Atlas Speed Steel 110S is an odorless, 100% solids emergency grade system for rapid repairs and live leak-sealing. The speed of cure allows for reduction in downtime and increased safety by eliminating hot work. Speed Steel 110S can be drilled, tapped, filed or machined while offering excellent mechanical properties. USDA approved incidental contact with food.

INTENDED USES

- Leaking Pipes
- Leaking Tanks
- Fast Structural Adhesive
- Holed Casings
- Leaking Seams
- Radiator Sealing
- Cracked Joint Sealing
- Leaking Coolant Lines

STORAGE AND TECHNICAL INFORMATION

Unit Size500 grams
 Shelf Life 3 Years when stored between 20 °F and 86 °F
 Application Temperature (Ambient) 40 °F - 95 °F (Ambient)
 Mixing Ratio (Volume) 1 Parts Base to 1 Part Hardener
 Coverage Rate @ 1/4" 44 in² per unit
 Volume Capacity 12 in³ per unit
 VOC 0.0 Lbs/Gal; 0.0 g/L
 Consistency Paste
 Available Colors Gray

PRODUCT PERFORMANCE

Heat Resistance:	300 °F Dry / 200 °F Immersed	NACE TM 0174
Compressive Strength:	9,000	ASTM D695
Tensile Strength:	3,800	ASTM D638
Flexural Strength:	5,000	ASTM D790
Hardness:	85 Shore D	ASTM D2240
Impact Resistance:	6.5 ft-lb/in	ASTM D4226
Abrasion Resistance:	3.2 % Weight Loss under high velocity sliding particle	

CURE SCHEDULE

Service / Temperature	41 °F	59 °F	77 °F	86 °F	90 °F
Pot Life	12 mins	8 mins	5 mins	3 mins	2 mins
Light Loading (Machining)	60 mins	40 mins	30 mins	25 mins	20 mins
Heavy Loading (Full Service)	120 min	1 hr	1 hr	40 mins	30 mins
Full Cure (Chemical Immersion)	2 days	24 hrs	17 hrs	10 hrs	5 hrs

CHEMICAL RESISTANCE *EX = 30 Days @ 72°F

10% Acetic Acid	Ex*	10% Hydrochloric Acid	Ex*	Gasoline	Ex*
10% Nitric Acid	Ex*	10% Phosphoric Acid	Ex*	Diesel	Ex*
20% Sulfuric Acid	Ex*	Propanol	Ex*	Oil	Ex*
Motor Oil	Ex*	10% Lactic Acid	Ex*	Kerosene	Ex*

TECHNICAL SUPPORT

Atlas Speed Steel 110S is backed with technical support from staff engineers, certified coatings inspectors, research laboratories and personnel 24 hours a day 7 days a week.
Call (786) 312-1231

MADE IN THE USA

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Material Application Guidelines



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SURFACE PREPARATION

Surfaces to which Atlas Speed Steel 110S is to be applied must be clean firm and dry. Any contamination such as rust, mill scale, dust, oils, grease, fats, waxes, weld spatter and coatings/sealers must be removed and or washed prior to the application of Speed Steel 110S.

- Surfaces should be abraded through mechanical means to provide a surface cleanliness of NACE No. 2 / SSPC-SP 10 with a roughness profile of 3 to 4 mils for metals. To the touch, a surface roughness of 3 to 4 mils is equivalent to 60-grit sandpaper or coarser.
- Cracks should be stabilized by drilling the ends. Long cracks should be stabilized by tapping and bolting along crack line every 3 to 4 inches. Also, please remember to vee out all cracks prior to surface preparation.
- Live leaks may be sealed using Atlas Speed Steel 110S by pressing material against the surface until it sets. It is recommended that this type of repair be followed by an application of Atlas Steel Rebuild 100S reinforced with an Atlas Band. For sealing high pressure leaks please contact Atlas Technical Department for step by step instructions.
- Please note that any surface irregularities should be properly addressed prior to the application of Speed Steel 110S. Also, please note that waxes, oils or greases should be removed with water and soap. Solvent such as acetone or MEK will not remove them.



CLEAN-UP AND CONSIDERATIONS

Clean Atlas Speed Steel 110S from tools with isopropyl alcohol, acetone or mineral spirits. This should only be done before it has hardened. Once hard it can only be removed through mechanical abrasion or grit-blasting.

Despite containing steel alloy fillers, Atlas Speed Steel 110S has excellent electrical insulating properties. Should you have any questions regarding this property of Atlas Speed Steel 110S please contact Atlas Polymers technical service team.



SAFETY & WARRANTY

Atlas Speed Steel 110S is a steel alloy filled epoxy resin system. Please refer to the Material Safety Data Sheets prior to using this product. Do not weld on or near the Hardener epoxy, hazardous fumes will be released.



MIXING

1. To mix Atlas Speed Steel 110S measure a 1:1 mixing ratio.
2. Mix thoroughly with a putty knife until the mixture becomes a uniform color.
3. Ensure that amount of material mixed can be used within the stated pot life.
4. Mixing at temperatures below 41 °F may be difficult. It is recommended that the Base and Hardener be heated to a temperature between 68 °F and 77 °F in a hot water bath prior to mixing in order to ease the mixing process.
5. Ensure correct mixing. Poor mixing will result in soft spots, poor curing and loss of physical properties.



APPLICATION

1. Apply the Atlas Speed Steel 110S directly on to the prepared surface with a spatula or putty knife.
2. Press down firmly to fill the surface profile, cracks, remove entrapped air and increase adhesion.
3. Speed Steel 110S can be applied at a finished thickness of at least 1/8", but may be built to 1" or more.
4. For application over large gaps stipple Speed Steel 110S onto a metallic mesh and place over the gap.
5. In the case that an additional layer of any other Atlas product is to be applied over Speed Steel 110S, it should be applied as soon as possible after the first layer and no later than 3 minutes at 70 °F.

Atlas Polymers, Corp. guarantees this product will meet the performance claims stated herein when material is stored and used as instructed in this document. Atlas Polymers further guarantees that all its products are carefully manufactured to ensure the highest quality possible and tested strictly in accordance with universally recognized standards. Since Atlas Polymers has no control over the use of the product described herein, no warranty for any application can be given.

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