

Perma Chock S

TECHNICAL DATA SHEET



Material Description

Atlas Perma Chock-S is an industrial and chemically resistant two component grouting / chocking system designed to meet the most severe industrial and marine environments. Perma Chock-S was engineered to withstand load and thermal shocks, preventing corrosion, fretting and equipment movement while remaining easy to use and safe.

Intended Uses

- Grouting Machine Bases
- Setting Sole Plates
- Setting Anchor Bolts
- Rudder and pintle bearing foundations
- Setting Level Wages
- Stern tube cutlass bearing foundation
- Engine / Generator foundation
- Cone crusher backing

Storage and Technical Information

Unit Size	1 gal (3.78 ltrs)
Shelf Life	3 Years when stored between 20°F and 86°F
Application Temperature (Ambient)	40°F - 95°F (Ambient)
Mixing Ratio (Volume)	Variable. See Reduction Chart
Coverage Rate @ 10 mils	10 ft ² per unit
Volume Capacity	231 in ³ per unit
VOC	0.0 Lbs/Gal; 0.0 g/L
Consistency	Liquid
Available Colors	Yellow

Product Performance

Heat Resistance:	196°F	NACE TM 0174
Compressive Strength (psi):	20,000	ASTM D695
Tensile Strength (psi):	5,500	ASTM D638
Flexural Strength (psi):	12,000	ASTM D790
Hardness (Shore D):	93	ASTM D2240
Shear Strength (psi):	7,600	ASTM D732
Fire Resistance:	Self extinguishing	ASTM D635

Cure Schedule

Please consult the reduction chart prior to mixing the material. The temperature of the material must always be above 55 °F (13 °C). Use external heat sources if necessary. Allow material to cure for the following times at a minimum:

50 °F - 65 °F (13 °C - 18 °C)	48 hrs
66 °F - 70 °F (19 °C - 21 °C)	24 hrs
Above 70 °F (21 °C)	18 hrs

Chemical Resistance

*Ex = 30 Days @ 72°F

10% Lactic Acid	Ex*	10% Hydrochloric Acid	Ex*	Bleach	Ex*
10% Nitric Acid	Ex*	75% Phosphoric Acid	Ex*	Diesel	Ex*
50% Sulfuric Acid	Ex*	50% Sodium Hydroxide	Ex*	Oil	Ex*
Motor Oil	Ex*	Diesel Fuel	Ex*	Kerosene	Ex*

Technical Support

Atlas Perma Chock-S 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 for assistance.

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MATERIAL APPLICATION GUIDELINES



Dam Preparation

Spaces in which Atlas Perma Chock-S is to be pumped or poured must be clean firm and dry. Any contamination such as rust, mill scale, dust, oils, grease, fats, waxes, laitance and other coatings/sealers must be removed prior to the application of Perma Chock-S.

- All areas to which Atlas Perma Chock-S will be pumped or poured must be inspected for potential leaks. It is easier to prevent leaks before Perma Chock-S has been poured than to stop them afterwards.
- Ensure that all materials used to create the dam should be coated with release agent or nonmelt grease. Materials that could become soft or permeable is exposed to heat should be avoided as Atlas Perma Chock-S can create significant heat exotherm while curing.
- If bolt holes are present, the bolts should be sprayed with release agent and placed with the nuts finger tight. Ensure that enough release agent is applied so that the bolts can be released after the material has cured. If the bolts are not available, plug the bolt holes with wooden dowels, silicone, or another suitable material.
- Before mixing, measure the substrate temperature, thickness of the pour and total volume needed. Ensure all damming is complete prior to mixing.



Mixing

1. To mix Atlas Perma Chock-S consult the supplied reduction chart to decide how much Hardener is needed using the substrate temperature and thickness of the pour.
2. Pour the amount of Hardener needed and mix thoroughly with a putty knife or with a jiffy-style mixer and a slow speed drill until the mixture becomes a uniform color. Ensure that no air is entrapped during mixing. This should take approximately 2 to 3 minutes depending on the mixing method used.
3. After initial mix, pour mixed material or pump it using a pressure chamber. If pouring, ensure that not scraping of the walls of the can or the bottom occur during the pour. Alternatively, the mixed material can be poured onto a clean container after the initial mix and then poured into the dam.
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 & Removal of Dam

1. If the chosen application method is to pour the Atlas Perma Chock-S, begin by slowly pouring into one corner of the prepared dam. Keep pouring into the same corner and allow the material to flow into the pour areas.
2. If the chosen application method is to pump the Atlas Perma Chock-S, insert the can into a pressure chamber and allow 3 to 6 psi into the chamber to allow Atlas Perma Chock-S to begin flowing into the dammed area.
3. Leaks can start at any time while the resin is still liquid. Do not leave the area unattended until Perma Chock-S has gelled or hardened.
4. Make sure the temperature is at a minimum of 55°F. Use heaters if needed.
5. If the total thickness is to be achieved in several pours, ensure that no more than 18 hours pass between coats. If this time is exceeded, the surface must be sanded until it is free from gloss.
6. Note: Do not apply the materials if the relative humidity is above 90% or if there is any fog, snow and mist present or likely to become present during application.
7. Once Atlas Perma Chock-S has adequately cured and the material has reached ambient temperature (remove heaters if they were used) remove the dam and sand any sharp edges.
8. Release any wedges, shims, jacks screws or alignment support used.



Clean-up and Considerations

Clean Atlas Perma Chock-S from tools with isopropyl alcohol, acetone or mineral spirits. This should only be done before it has hardened. Alternatively, Perma Chock-S can be allowed to cure on the Atlas Mixing Knife or Atlas Applicator and easily removed by flexing or bending the mixing knife and applicator.

Once fully cured Perma Chock-S may be cleaned with commercial and industrial cleaners. Always rinse with clean water after cleaning. Aggressive cleaning chemicals should not be left standing over for longer than 3 hours.



Safety & Warranty

Atlas Perma Chock-S is an epoxy resin system. Please refer to the Safety Data Sheets prior to using this product. Do not weld on or near the epoxy, hazardous fumes will be released.

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.

Reduction Guide Chart

