

H40

Moisture activated polyurethane soil stabilization resin.

Description	Solvent and phthalate free, water reactive, hydrophobic, one-component low viscosity polyurethane injection resin designed for soil stabilization.
Applications	<ul style="list-style-type: none"> • Soil and gravel layer stabilization. • Pre- and post-injections in mines, tunnels, pipe jacking, drill & blast and TBM applications. • Injections in combination with cement and microfine cement. • Anchorings and micropiles. • Stabilization of quay walls, floor slabs, roads, slopes and sewers. • Curtain grouting, damming of chemically contaminated soil.
Advantages	<ul style="list-style-type: none"> • One component. • Different reaction times are possible by adjusting the percentage of H40 ACC accelerator. • Injections in compact soil layers up to coefficient 10-6m/s are possible. • Cured polyurethane chemically anchored with substrate exhibits high strength and good chemical resistance (contact our Technical Service for chemical resistance). • Cured polyurethane is harmless for the environment and resistant to biological attacks.
Packaging	5 Gallon Pails

Properties

Uncured

(appearance brown liquid)

Viscosity at 77°F	(ASTM D4878-98)	±40cps
Flash Point	(ASTM D1310-86)	>302°F
Density	(ASTM D3505-96 [2000])	1.100 ± 0.002

Cured

Compressive strength	EN 12190	905psi*
Flexural strength	EN 12190	±2MPa
Density	EN ISO 1183	±62.43lb/ft3

Reaction Rate with ACC H40 Accelerator

	41°F		59°F		77°F	
	Start	End	Start	End	Start	End
0.5	620"	2210"	560"	1940"	540"	1800"
1	480"	1100"	280"	810"	240"	660"
2	330"	660"	240"	540"	180"	360"

Material Prep Condition overnight to 70° - 80° F (21° - 26° C). Heat bands or hot water bath may be used to warm containers. Do not heat above 80 degrees F.

Mixing Vigorously shake the H40 ACC before use and pour the required quantity (0.5-10%) into the PU H40 resin. Mix the accelerator homogeneously into the resin and protect against moisture and rain to prevent premature reaction.

Equipment Depending on the application, injection can be carried out using a hand pump, pneumatic pump or electric pump. Preferably use a separate pump for injection of water and resin.

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Accessories	ACC H40 Accelerator, AP Flush 121, AP Soak 130
Personal Protection	Safety goggles, face shield, impermeable gloves, long sleeves and pants. Use in well ventilated areas. Open doors and windows. In confined areas use mechanical ventilation to keep vapor concentrations low. Prevent direct contact with skin and eyes. See SDS.
Clean Up	Flush injection equipment with AP Flush 121 when necessary. Remove cured material from metal components by soaking in AP Soak 130. Clean off of skin with soap and water.
Environmental Protection	Cured material is chemically inert and safe to dispose of in landfill. Cleanup any spilled liquid resin and place in a suitable sealed container. Dispose of in accordance to applicable environmental regulations.
First Aid	Eye Contact: Immediately flush with large amounts of water. Seek medical attention. Inhalation: Move to fresh air if symptoms occur. If breathing is difficult, seek medical attention. Ingestion: Seek medical attention immediately. Skin Contact: Wipe off contaminated area and wash with soap and water.
Limitations	Low temperatures will increase viscosity making product more difficult to pump. Low temperatures or cold water will slow down the reaction time. pH of reaction water should be between 3 and 10 for optimum foam. Keep lid tightly closed.
Storage	Store between 50° - 85° F (10° - 29° C).
Handling	Keep lids on tightly to prevent moisture from entering containers. Avoid direct contact with product. Be careful when opening as pressure may build up inside containers.
Limited Warranty	Alchemy-Spetec warrants this product to be free from manufacturer's defects and to meet all published properties on current Technical Data Sheet for a period of one year if used according to published instructions and within the shelf life. The user is responsible for determining suitability for intended use and assumes all risk. No other warranties expressed or implied shall apply including any warranty of merchantability or fitness for a particular purpose. Purchaser's sole remedy is limited to the purchase price or product replacement exclusive of cost of labor or other materials.
Latest Information	Before each use read latest Technical Data Sheets, Safety Data Sheets, and instructions available at www.alchemypolymers.com . Nothing contained in any Alchemy-Spetec materials or verbal instruction relieves the user of the obligation to read and follow all usage instructions and warnings for each product contained in the latest Technical Data Sheets and Safety Data Sheets. All information given by Alchemy-Spetec about Alchemy-Spetec products and procedures is given in good faith based on our current experience level and knowledge when materials are properly stored, handled, and applied. Jobsite conditions always vary, and for this reason Alchemy-Spetec assumes no liability for the provision of such information or instructions. Neither shall any legal relationship be created by the provision of such information.

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