

AP LIFT 430

TWO COMPONENT, STRUCTURAL POLYURETHANE FOAM FOR LIGHTWEIGHT AND MEDIUM WEIGHT STRUCTURES



DESCRIPTION

AP LIFT 430 is a two component, high strength, high density, hydro insensitive structural polyurethane foam. Unconfined density is approximately 48 kg/cubic meter.

BENEFITS

- Great lifting force
- Fully cured and loadable within 30 min.
- Works in wet environments
 - Water and soil displacement properties
- Bonds with soil and concrete
- Closed cell
- NSF/ANSI 61-5 certified for contact with drinking water

FIELD OF APPLICATION

- Stabilizing soil
- Lifting sunken or settled concrete slabs and light to medium-heavy structures
- Filling voids
- Filling abandoned pipes

APPLICATION

Note : The following is a typical application description. In case of other jobsite parameters, please contact our technical department.

PRELIMINARY ANALYSES

For slab lifting, soil stabilization, consolidation grouting, and all other forms of geotechnical grouting, it is advised to review soil reports from the job site. Take note of all structural elements and considerations and consult with geotechnical or structural engineers as needed. Locate all utilities prior to drilling or driving pipes into the ground.

REQUIRED TOOLS

Proportioning pump with heated lines, drill bits, MixMaster Pro gun, ports, AP FLUSH 121 , soil probes.

PREPARATION OF THE SUBSTRATE

Distances between injection points and injection depths depend on site soil conditions and structure.

PREPARATION OF THE PRODUCT

Read the technical and safety data sheets prior to commencement of the injection work.

PREPARATION OF THE EQUIPMENT

Test the pump before starting the injection to confirm equal flow and pressures from both A and B lines. MixMaster Pro should always be thoroughly inspected for cross-contamination or foreign buildup of any kind prior to injection.

APPLICATION

Start the injection at the first probe and work way across grid pattern as needed taking note of travel of foam, connectivity to next hole location, and volumes used.

Do not over pressurize while injecting; the correct injection pressure is the pressure that allows resin to penetrate the soils and/or fill the voids and keep the MixMaster Pro operating properly

Take note of reaction time of material and be sure to purge injection gun regularly to prevent material curing in the gun.

If lifting slabs, monitor lift with specialized tools to prevent over-lift.

If stabilizing soil, pay attention to volume/vertical distance estimation and for material not penetrating and exiting around probe only.

Clean the MixMaster gun thoroughly with Spetec pressure pot system, and cap supply lines.

Run material through the pump as a maintenance step every 7-10 days.

CLEANING AND MAINTENANCE

After the injection, clean the pump with AP FLUSH 121 . Conduct a full Spetec-recommended gun flush after every use. Material can remain in cleaned and capped lines. After injection, remove the packers from the concrete and fill the holes with a fast setting cement or any other appropriate filler material.

COMPLIMENTARY PRODUCTS

½" hydraulic tubing, flush pot, dial indicator cranes, airless flush pump, air compressor, ports, AP FLUSH 121 .

ADVICE / FOCAL POINTS

Avoid injecting by temperatures below -20°C. In extreme cold conditions it is recommended to warm both components to 16°C – 27°C).

TECHNICAL DATA

APPEARANCE - COMPOSITION

Physical Properties - Cured

Compressive Strength	(ASTM D-1621)	50 p.s.i. or 7,200 p.s.f.	3,447 bar
Tensile Strength	(ASTM D-638)	88 p.s.i.	6.067 bar
Expansion	(Unconfined)	22-26 times	-
Density	(ASTM-D 1622)	2.75 to 3.25 lb/ft ³	44.05 to 52.06 kg/m ³

Properties will vary depending on application conditions.

REACTION TIMES

Reaction Time @ 25°C

Initial Reaction Time	8 seconds
Tack Free	30 seconds
90% Full Strength	15 minutes

CONSUMPTION

Consumption has to be assessed on site and is influenced by the specific AP LIFT product used, soil type, load to be lifted, amount of water in the substrate, soil compaction, and possible presence of voids.

REFERENCE DOCUMENTS



FM 78518



EMS 716699



Certified to NSF/ANSI 61-5
Barrier Material approved for

PACKAGING

AP LIFT 430	COMPONENT A	COMPONENT B
Set 46 kg	25 kg	21 kg
Set 460 kg	250 kg	210 kg

STORAGE AND SHELF LIFE

Store in a dry area protected from sunlight, between 10°C and 29°C. The shelf life of both components is 12 months after production date, provided they are stored in the original packaging.

SAFETY PRECAUTIONS

Avoid contact with eyes and skin, always use personal protective equipment in compliance with local regulations. Read the relevant Safety Data Sheet before use.

Safety Data Sheets are available on www.Spetec.com.

When in doubt contact Spetec Technical Service.

The above information is provided in good faith, but without any guarantees. The application, use and processing of the products are beyond our control and are, as such, the sole responsibility of the user/processor. In the event that KorAC NV is still held liable for damages, then the claim will still be limited to the value of the goods delivered. We always aim to deliver consistently high quality goods. All values on this technical sheet are average values that result from tests carried out under laboratory conditions (20°C and 50% RH). Values that are measured on the construction site may show a slight deviation since the environmental conditions, the application, and the way of processing our products are beyond our control. Do not add any products other than those indicated on the technical documentation. This version replaces all previous versions. Version 2.0 Date: 28 April 2023 10:46 am