ASE SYSTEMS

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EPOXY RESIN FLOOR Prep / REPAIR SYSTEM
For Air Caster Load Moving Equipment

The following Epoxy Resins & Hardeners will fill in cracks, expansion joints, divots and gouges in your concrete floor and allow your air caster system to operate as intended over a smooth non-porous surface. The Epoxy compound can also be spread over a large area to completely seal the surface for air caster use.

The epoxy cures to a high-strength plastic solid at room temperatures, by mixing specific proportions of liquid epoxy resin and hardener. By using a simple "cookbook" approach you can tailor the handling characteristics and the physical properties of the cured epoxy to suit your working conditions and specific coating or bonding application.

1. Start with 105 Resin, the basic ingredient of all of our epoxy compounds.
2. Mix with one of four hardeners. Select a hardener for its intended use and for the cure speed best suited for your job in the temperature range in which you are working.
3. Add one of six fillers to thicken the mixture as needed. Select filler for its handling characteristics or cured physical properties. Or, add one of six additives to provide specific coating properties.

105 Epoxy Resin

105 Resin is the base material of the family of products, on which all of the epoxy compounds are built. The resin is a clear, pale yellow, low-viscosity liquid epoxy resin. Formulated for use with various hardeners, it can be cured in a wide temperature range to form a high-strength solid with excellent moisture resistance. It is designed specifically to wet out and bond with wood fiber, fiberglass, reinforcing fabrics, concrete and a variety of metals. An excellent adhesive, 105 will bridge gaps and fill voids when modified with fillers and can be sanded and shaped when cured. With roller applications, it has excellent thin-film characteristics to flow out and self-level without "fish eyeing." The resin cures clear so that you can achieve a natural finish when coating with varnish. It has a relatively high flash point and no strong solvent odor, making it safer to work with than polyesters. Resin viscosity is approximately 1000 cP (centipoise) at 72°F (22°C).

Air Caster Systems require a smooth non-porous surface such as hand or machine trawled concrete that has been sealed.

Group Size	Resin quantity	Hardener quantity	Mixed quantity	Mini pump	Saturation Coat Porous Surfaces	Build-up Coats Non-Porous Surfaces
A	105-A 1 qt (.94 L)	205-A or 206-A .43 pt (.20 L)	1.2 qt. (1.15 L)	300	90–105 sq. ft. (8.5–10m^2)	120–135 sq. ft. (11–12.5 m^2)
		207-A or 209-A .66 pt (.31 L)	1.3 qt. (1.26 L)	300	90–105 sq. ft. (9–10 m^2)	120–135 sq.ft. 11–13 m^2)
B	105-B .98 gal (3.74 L)	205-B or 206-B .86 qt (.81 L)	1.2 gal. (4.55 L)	300	350–405 sq. ft. (32–37 m^2)	462–520 sq. ft. (43–48 m^2)
		207-B or 209-B 1.32 qt (1.24 L)	1.3 gal. (4.98 L)	300	370–430 sq. ft. (35–40 m^2)	490–550 sq. ft. (45–50 m^2)
C	105-C 4.35 gal (16.47 L)	205-C or 206-C .94 gal (3.58 L)	5.29 gal. (20 L)	300	1530–1785 sq.ft. (142–165 m^2)	2040–2300 sq.ft. (190–213 m^2)
		207-C or 209-C 1.45 gal (5.49 L)	5.8 gal. (21.9 L)	300	1675–1955 sq.ft. (155–180 m^2)	2235–2520 sq.ft. (207–233 m^2)

Epoxy resin and hardeners are packaged in three "Group Sizes." For each container size of resin, there is a corresponding sized container of hardener. When purchasing resin and hardener, be sure all containers are labeled with the same Group Size letter (A, B or C). The 300 Mini Pumps can be configured to fit any Group Size.

Shelf life

If the containers are kept sealed when not in use the resins and hardeners should remain usable for many years. Over time, 105 Resin will thicken slightly and will therefore require extra care when mixing. Hardeners may darken with age, but physical properties are not affected by color. Mini Pumps may be left in containers during storage. It is a good idea, after a long storage to verify the metering accuracy of the pumps and mix a test batch to assure proper curing before applying epoxy to your project.

EPOXY HARDNERS

Hardener selection: select a hardener for its intended use and for the cure speed best suited for your job in the temperature range in which you are working.

205 Fast Hardener

205 Fast Hardener is a medium-viscosity epoxy curing agent. It is used in a majority of situations, at lower temperatures and to produce a rapid cure that develops its physical properties quickly at room temperature. When mixed with the 105 Resin in a five-part resin to one-part hardener ratio, the cured resin/hardener mixture yields a rigid, high-strength, moisture-resistant solid with excellent bonding and coating properties. Not intended for clear coating.

Mix Ratio, Resin: Hardener	5:1*
Pot life at 72°F (22°C)	9 to 12 minutes
Cure to a solid state	6 to 8 hours
Cure to maximum strength	1 to 4 days
Minimum recommended temperature	40°F (4°C)
Pumps required	300, 306 or 309

206 Slow Hardener

206 Slow Hardener is a low-viscosity epoxy curing agent for use when extended working and cure time is needed or to provide adequate working time at higher temperatures. When combined with 105 Resin in a five-part resin to one-part hardener ratio, the cured resin/hardener mixture yields a rigid, high-strength, moisture-resistant solid with excellent bonding and coating properties. Not intended for clear coating.

Mix Ratio, Resin: Hardener	5:1*
Pot life at 72°F (22°C)	20 to 25 minutes
Cure to a solid state	9 to 12 hours
Cure to maximum strength	1 to 4 days
Minimum recommended temperature	60°F (16°C)
Pumps required	300, 306 or 309

*** Mix Ratios**

The mix ratios above-5:1 for 205 and 206, 3:1 for 207 and 209-refer to the ratio of resin to hardener if you are metering by weight or volume. When using 300 Mini Pumps, **pump one stroke of resin for every one stroke of hardener.** Refer to the instructions included with the 300 Mini Pumps before using.

Low Temperature Considerations

When using Epoxy at low temperatures, special precautions can be taken to assure maximum performance. Please ask for more information as required.

METERING PUMPS

300 Mini Pump Set

300 Mini Pumps are designed for convenient and accurate metering of all Group Size A, B and C resin and hardeners. They mount directly on the resin and hardener containers and eliminate the mess involved with measuring by weight or volume. 300 Mini Pumps are calibrated to deliver the proper working ratio with one full pump stroke of resin for each one full pump stroke of hardener.

The 300 Mini Pumps Set contains one resin pump and two hardener pumps. 105/205-206 pumps deliver approximately 0.8 fl oz of resin/hardener with one full stroke of each pump. 105/207-209 pumps deliver approximately 0.9 fl oz of resin/hardener with one full stroke of each pump.

As packaged, the pumps are ready to install on the Group Size B containers. A package of extension tubes for Group Size A containers is included with the set. Group Size C extension tubes are included in the 105-C Resin and in the 207-SC or 209-SC packages.

If necessary, you can combine different group sized-as long as all of the pumps have a yellow head. To avoid confusion and possible off-ratio metering, 300 Mini Pumps have yellow heads, which should not be used in with any older pumps with a white head (301 and 303 pumps).

Made of durable polypropylene, the pumps give years of dependable service. Read and follow the priming, ratio verification and operating instructions that come with the pumps.

LARGE CAPACITY PUMPS

306 Model A Metering Pump

For metering larger quantities of 105 Resin and 205 or 206 (5:1 ratio) Hardeners. The Model A Pump will reduce mixing time and waste on large projects. A carrying handle allows you to move the pump where the works is. Reservoirs hold one gallon of resin, one quart of hardener. Dispenses approximately 0.5 fl oz of resin/hardener per pump stroke.

Air Caster Systems require a smooth non-porous surface such as hand or machine trawled concrete that has been sealed or equal.

Air Caster Technology allows the operator to exert only 1-3 pounds of force to move 1,000-lb of load.

Air Caster Load Module Systems offer extreme versatility and simplicity of operation. The Load Modules are ideal for jacking or rotating assemblies, precise positioning and alignment over footings.

Air Caster Plank Systems are designed for applications where the load is long and narrow and ideally suited for intermittent flow assembly lines and other station to station applications.

Air Caster Pallet Systems with capacities up to 24,000-lbs are ideally suited for small concentrated loads and can replace forklifts, cranes, pallet jacks and conveyors- often at a fraction of the price.

Air Caster Roll Movers reduce the amount of manpower, effort and time required to move bulky paper rolls, cable reels and metal sheet coils.

With the fluid film technology used in our Air Caster equipment, one person can easily move tons. Air Casters use compressed air to literally float heavy or delicate loads on a thin film of air.

Air Casters are your answer for moving virtually any heavy load.

Air Jack Systems with lift highest from 2 to 20 inches and virtually limitless load capacities, ASE's Air Jack Systems make jacking & load lifting fast and easy. And, because our jack systems are extremely light weight, portable and have a very low profile when deflated, they are easy to handle, store, transport and set up.

When you compare Air Caster Systems to other handling systems such as overhead crane systems, Air Caster Systems are proven to be:

- ✓ **Air Casters are More Affordable**
- ✓ **Air Caster are More Versatile**
- ✓ **Air Casters are Faster**
- ✓ **Air Casters are Easier and**
- ✓ **Air Casters are Safer**

Whether your load is 500 or 500,000 pounds, Air-Caster equipment combines simplicity of operation with tremendous versatility to provide smooth, easy, omni-directional movement at a very affordable price.

The Air-Caster Principle:

Step 1
Prior to inflation, the load is solidly supported on landing pads. These pads protect the Air-Caster's torus bag from being crushed when the load is at rest.

Step 2
When air is applied to the Air-Caster, the torus bag inflates, creating a seal against the floor surface and raising the load.

Step 3
When the pressure within the chamber is sufficient to offset the load's weight, air evenly escapes between the flexible torus bag and the floor. The load is literally floated on a thin, nearly frictionless cushion of air, .003 to .005 inches (.08 to .13mm) thick.