SAUEREISEN

EPOXY EXPANSION JOINT COMPOUNDS NO. 220 & 221

PHYSICAL PROPERTIES	Epoxy Expansion Joint Compound No. 220	Epoxy NovolaK Joint Compound No. 221
Bond strength to concrete (concrete failure) (ASTM C-478)	300 psi (21.1 kg/cm^2)	300 psi (21.1 kg/cm^2)
Cure time		
Foot traffic	24 hours	24 hours
Chemical service and ultimate cure	72 hours	72 hours
Hardness at 77^{o}F (Shore A) (ASTM D-2240)	70-80	60
Maximum service temperature (ASTM D-648)	150^{o}F (66^{o}C)	180^{o}F (82^{o}C)
Mixing ratio, by volume	1:1	1:1
Pot life (ASTM C-308 modified)	40 minutes	40 Minutes
Tensile elongation (ASTM D-2370)	100%	50%
Tensile strength (ASTM C-307)	600 psi (42.2 kg/cm^2)	800 psi (56.2 kg/cm^2)
Viscosity (mixed) (ASTM D-2393)	2,200 cps	2,200 cps
Water absorption (ASTM C-413)	0.5 max %	0.5 max %
Weight per gallon (mixed)	9.72 lbs (4.41 kg)	9.8 lbs (4.44 kg)

Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results; therefore, data are subject to reasonable deviation. Data should not be used for specification purposes.

Sauereisen Epoxy Expansion Joint Compounds are used to provide a durable joint filler. They maintain excellent flexibility. The materials are 100% solids, pourable epoxies designed to effectively absorb the shock and impact of heavy loads and steel-wheeled vehicles over narrow joints. Available in two formulations, No. 220 is for general purpose applications and No. 221 is a novolac epoxy for more severe chemical environments.

Sauereisen Joint Compounds are nonshrinking due to their high-solids content and will not become brittle. These self-priming materials will flow and self-level to the full depth of the joint. The joint compounds cure quick enough to be ready for foot traffic in 24 hours and chemical service in 3 days.

To use in vertical joints, add 1/2 to 1 pound of Thixotrope No. 220T (sold separately) to each unit of joint material and mix thoroughly. This results in a viscosity suitable for a caulking gun.

CHARACTERISTICS

- ☐ Flexible. Absorbs heavy loads.
- ☐ Resists chipping and wear at joint edges.
- ☐ Nonshrinking.
- ☐ Pourable and self-leveling.
- ☐ Requires no primer.
- ☐ Cures on damp surfaces.

AREA PREPARATION

Temperature of Working Area

Maintain a temperature of 60^o-90^{o}F on air, substrate and Epoxy Expansion Joint Compounds during mixing, application and cure. Material components should be maintained at 60^o-90^{o}F for 48 hours prior to use.

Surface Preparation

The substrate should be made free of oil, grease, laitance and other contaminants that may inhibit the bond of the joint compound. Chemical cleaning is recommended. All surfaces must be firm and structurally sound as specified by the architect/engineer. Any loose particles of dust, dirt or foreign matter should be removed by brushing or vacuuming.

APPLICATION

Mixing

Nos. 220 & 221 are packaged as premeasured, 1-gallon units containing two components - Liquid and Hardener - which are mixed 1:1 by volume as used.

Completely empty contents of Hardener into Liquid component and mix thoroughly for three to five minutes using a slow-speed (150 rpm) paddle-type mixer. Avoid entrapment of air while mixing.

Do not add water, sand or any other adulterant to either component or the mixed compound unless specifically recommended by Sauereisen. Upon completion of mixing, the joint material is ready for use.

Installation

A bond breaker should be installed in the bottom of the joint prior to pouring No. 220/221. Polyethylene foam backer rods that are 50% wider than the width of the joint should be forced down to the substrate for this purpose. Where the joint depth is less than 1/2 inch, vinyl electrical tape should be installed at the bottom of the joint to prevent bonding to the substrate. Pour the mixed joint compound into the clean, dry joint.

As a general rule, the depth of the material in the joint should be maintained at approximately twice of the joint width in order to provide the right combination of elongation and corrosion resistance. For applications where joints are very deep, additional layers of backer rods should be used.

For vertical applications, tape the open joint and then pour the No. 220/221 behind the tape. Do not attempt to pour more than 12 inches of material behind the tape. As the application moves up the wall, the procedure is repeated; applying tape and then pouring behind the tape.

The tape is left in place until curing takes place. As an alternative, approximately 1/2 to 1 gallon of Additive No. 220T may be added to each unit of mixed joint compound and blended thoroughly. This results in a material grade that may be applied with a caulking gun.

For deteriorated joints, repair the surrounding protective system with the proper Sauereisen material. The repair material should be "keyed in" by sawcutting beyond the spalled concrete on both sides of the joint and mechanically removing the loose concrete. The joint should be reformed when placing the repair material by using a removable spacer; or the deteriorated joint area may be completely sealed with the repair material and a new joint sawcut after it cures. Refill with No. 220/221.

CLEAN-UP

All equipment should be cleaned with MEK or N-methyl pyrol before joint compound cures. If removal is required after cure, consult Sauereisen for recommendations.

SETTING/CURING

The compounds should be allowed to cure a minimum of 24 hours at 70°F prior to water or foot traffic; 72 hours prior to chemical service. At temperatures below 70°F, cure a minimum of 48 hours prior to water exposure or foot traffic.

COVERAGE

LINEAR FEET FILLED BY ONE UNIT

Joint Depth (Inches)	Joint Width (Inches)					
	1/8	1/4	3/8	1/2	5/8	3/4
1/4	616.0	308.0	205.4	154.0	123.2	102.6
1/2	308.0	154.0	102.8	77.0	61.6	51.4
3/4	205.4	102.8	68.4	51.4	41.0	34.2
1	154.0	77.0	51.4	38.6	30.8	25.8
1-1/4	123.2	61.6	41.0	30.8	24.6	20.6
1-1/2	102.6	51.4	34.2	25.6	20.6	17.2
1-3/4	88.0	44.0	29.4	22.0	17.6	14.6
2	77.0	38.6	25.6	19.2	15.4	12.8
2-1/2	61.6	30.8	20.6	14.8	12.3	10.2
2-3/4	51.4	25.6	17.2	12.8	10.2	8.6

PACKAGING

Nos. 220 & 221 are two-component materials packaged in a carton as follows.:

Liquid: 1 gallon can
Hardener: 1 gallon can

Each container is partially filled to provide an approximate gallon of expansion joint material when mixed.

SHELF LIFE

Epoxy Expansion Joint Compounds have a shelf life of one (1) year when stored in unopened, tightly sealed containers in a dry location at 70°F. If there is doubt as to the quality of the materials, consult a Sauereisen representative.

CAUTION

Consult Material Safety Data Sheets and container label Caution Statements for hazards in handling these materials.

WARRANTY

We warrant that our goods will conform to the description contained in the order, and that we have good title to all goods sold. WE GIVE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSLY SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using Sauereisen cements and compounds for a similar application. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of nonconforming goods at our factory or, at our sole option, to repayment of the purchase price of nonconforming goods.

❑ **Distributors and agents in major cities throughout the world. Consult manufacturer for locations.**

❑ **Sauereisen also produces inorganic compounds for assembling, sealing, electrically insulating and grouting.**

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