



RT20 – Anaerobic Curing Impregnation Sealant

TECHNICAL INFORMATION

ANASEAL® RT20 is a very high quality, water washable impregnation sealant for porous materials which has been especially formulated to cure anaerobically at room temperature. Polymerization (cure) occurs as a result of the presence of free ions and the inhibition of oxygen (O²). Cure speed can be controlled through adjustments in process variables.

ANASEAL RT20 is suitable for use in impregnation equipment with provision to aerate and refrigerate the sealant when not in the vacuum step of the process cycle. Most types of equipment can be modified to process **RT20**. The sealant is suitable for use with all common types of impregnation process, including simple wet vacuum, dry vacuum, wet or dry vacuum/pressure, or pressure injection.

ANASEAL RT20 forms a densely crosslinked thermoset polymer when cured. Because it cures anaerobically, “bleedout” of sealant during high temperature curing does not occur as with most other sealants, usually resulting in higher sealing rates. No detergents, soaps, or other additives that could detract from the quality and integrity of the polymerized sealant are used. This critical formula results in a sealant with very high resistance to solvents and to thermal degradation, yet is easily washable in plain water.

I. GENERAL PROPERTIES:

The following data is not intended to be used for specifications, but are typical properties based on laboratory results. Chemence technical personnel can help determine actual specification data.

Uncured Properties	
Composition/type:	Methacrylate monomers
Appearance/Color:	Translucent, amber liquid
Viscosity @25°C:	27-31s Zahn Cup N° 1
Specific Gravity:	1.03
Flash Point:	>90°C
Vapor Pressure:	<1 mmHg
Solvent Content	<0.1%
Cured Properties	
Appearance:	Hard, translucent, plastic
Hardness Shore D (ASTM D2240)	80
Fluorescence:	Yes

II. SOLVENT RESISTANCE:

ANASEAL RT20 is resistant to almost all common solvents, including hydrocarbon solvent (oils, gasoline), chlorinated and fluorinated solvents, mild caustic acid solutions, and water. The sealant has passed all requirements of Mil-I-17563F and is QPL listed. The following solvent conditions were tested and approved per Mil-I-17563C:

Solvent	Results
Water	No Leakage
Oil	No Leakage
Hydraulic Fluid	No Leakage
Hydrocarbon Fluid	No Leakage
Turbine Fuel	No Leakage
Lubricating Oil	No Leakage
Carbon Removing Compound	No Leakage
Ethylene Glycol	No Leakage

III. SERVICE TEMPERATURE RANGE:

ANASEAL RT20 is formulated from the highest quality monomers to maximize the service operating range of the polymer. **RT20** is recommended for continuous service from -54°C, (-65°F) to 204°C, (399°F). Peak intermittent temperatures exceeding above or below -- 54°C, (-65°F) to 204°C, (399°F) may be permissible in particular applications.

IV. CURING RATES AND METHODS:

ANASEAL RT20 cures/polymerizes anaerobically at room temperature. Pressure testing and other processes may be accomplished in as little as 20 minutes, depending on the application variables attendant to the process.

All parts must be clean, dry, and free of all foreign material prior to resin impregnation. Resin impregnations should be completed prior to plating, anodizing, painting, etc. After impregnation, excess sealant can be recovered in a centrifuge before rinsing.

Reactivity of the impregnation resin is monitored by measuring gel time of a representative sample from the tank. Resin temperature in the vessels should be kept below 60°F. Gel time measured in a 12x 75mm test tubes should be between 20-25 minutes at 55°C. Gel time can be adjusted up or down to meet customer requirements.





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V. STORAGE

ANASEAL RT20 unactivated is easy to store and will exhibit long shelf life under proper storage conditions. The sealant should be stored in its original container and away from direct sunlight or other sources of UV light. Storage temperatures should be maintained below 27°C (80°F).

VI. HANDLING

ALL CHEMICALS SHOULD BE HANDLED WITH CARE.

ANASEAL sealants can be safely handled using normally accepted practices for handling non-toxic industrial chemicals. Rubber gloves should be worn when handling liquid sealant. Avoid excessive skin contact and wash thoroughly with water and mild soap if contact occurs. If dermatitis occurs, seek medical attention and avoid further exposure.

Avoid accidental contact with the eyes by using safety glasses. If accidental contact with the eyes should occur, flush immediately with copious amounts of clean water and obtain medical attention.

VII. WASTE TREATMENT

Cured **RT20** is inert and can be disposed of as ordinary industrial trash. Uncured sealant should be cured before disposal. Sealant in solution in wash water effluent is biodegradable and normally acceptable at local POTW treatment facilities.

Most in-plant treatment systems can process moderate effluent with minimal difficulty. Contact your Chemence impregnation representative for assistance with specific application issues.

VIII. QUALITY STANDARDS

CHEMENCE ANASEAL IMPREGNATION SEALANTS are manufactured under standards and approvals certified to ISO 9001-2008.

FOR TECHNICAL OR OTHER ASSISTANCE, PLEASE CALL 770-664-6624

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