

PM20

ANAEROBIC CURING IMPREGNATION SEALANT ANASEAL® PM20

is a high quality, water washable impregnation sealant formulated as a plating grade sealant for porous powder metal materials. It cures anaerobically at room temperature. It is designed for use in impregnation systems having aeration and refrigeration capability. 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.

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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 PM20. 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.

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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:8-12mPa.s
 Specific Gravity:~ 0.95
 Flash Point:>90°C
 Solvent Content:<0.1%
 Shelf Life:6 month
 Vapor Pressure:Very Low

Cured Properties

Appearance:hard, translucent, plastic
 Hardness Shore D (ASTM D2240):60
 Compressive Modulus (ASTM D695)1x115lb/in²

II. SOLVENT RESISTANCE

ANASEAL® PM20's anaerobic cure results in a very high quality cured polymer which is resistant to all common solvents, including hydrocarbon solvents (oils, gasoline), chlorinated and fluorinated solvents, mild caustics and acid solutions, and water. Specific data concerning resistance to other solvents is available upon request.

III. SERVICE TEMPERATURE RANGE

ANASEAL® PM20 is formulated from the highest quality monomers to maximize the service operating range of the polymer. PM20 is recommended for continuous service at least to -54°C (-65°F) to 149°C, (300°F). Peak intermittent temperatures above or below exceeding -54°C (-65°F) to 149°C, (300°F) may be permissible in particular applications. Contact your Chemence representative for help in evaluating your application needs.

IV. CURING RATES AND METHODS

ANASEAL® PM20 cures/polymerizes anaerobically at room temperature. Pressure testing and other processes may be accomplished in as little as 20 minutes, depending on the application and the variables attendant to the process. Typical impregnation process time is 20 - 25 minutes.

V. STORAGE

ANASEAL® PM20 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 dermatitic reaction to the sealant is experienced, 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 PM20 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® SEALANTS are manufactured under a quality system certified to: ISO9001:2000

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

It is the responsibility of the user to determine the suitability of any product or process described herein for his purpose. The user is admonished to adopt any and all precautions to protect persons and property against any hazards which may be involved in the use or handling of products or processes described on this data sheet. It is recommended appropriate testing of proposed applications be conducted by the user. The data furnished herein is for information only and deemed to be reliable. No responsibility is assumed for conditions and or methods of others over which we have no control.

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CHEMENCE INCORPORATED
 185 Bluegrass Valley Parkway
 Alpharetta, GA 30005
 USA
 770-664-6624
 770-664-6620 (Fax)

CHEMENCE LIMITED
 Princewood Road
 Corby
 Northants, NN17 2XD
 UK
 44-536-400266
 44-536-400266 (Fax)

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[THE CHEMISTRY OF EXCELLENCE]

tel 770 664 6624
 fax 770 664 6620
 www.chemence-us.com