

Enviroset 20EX FNB Resin

Product Features

Enviroset 20EX Furan Nobake Resin is a low nitrogen, low water furan resin that offers a number of features that set it apart from conventional furan resins on the market. The following product features characterize this binder:

- Low Water, low Nitrogen
- Non-reportable formaldehyde and phenol
- Low viscosity
- High tensile strengths
- High furfuryl alcohol

Product Description

Enviroset 20EX is a thermosetting furan resin that will react in the presence of a strong acid catalyst, at ambient temperatures, to form a cured binder. It is suitable for use in the production of cores or molds, and can be used with all types of metal. Typically the amount of Enviroset resin applied to the sand will range between 0.8% to 1.2% resin, based on the weight of the sand. The quantity of acid used in the sand mix is dependent upon the type and strength of the acid, but normally ranges between 20% - 50% based on the weight of the Enviroset resin.

Recommended practice when using Enviroset resins is to start with a clean, washed and dried silica sand. Reclaimed sands are also widely used with this type of product. Mechanically reclaimed sand that is low in fines and residual binder (Loss on Ignition) is preferred. In continuous or batch-type mixers, the acid should be the first component added to the sand, with the resin added after the acid has been dispersed. Caution should be exercised to prevent the liquid resin and acid components from coming into direct contact with one another since the resulting reaction can be very exothermic.

Typical Physical Properties

Typical Properties – Enviroset 20EX

Viscosity, cps	10-40
% Water	3.0 max
% Nitrogen	0.3
% Free formaldehyde	<0.1
% FA	>80

Performance Characteristics

Measurable tensile strength begins to develop shortly after the sand mix containing the Enviroset resin and acid catalyst is discharged into a core box or pattern. The rate of strength development is related to the chemistry of the resin, the catalyst used, and the core geometry. Tensile strength will vary due to the many factors known to affect binder performance, e.g. sand quality, sand temperature, mixing efficiency, etc.

Storage Guidelines

Recommended storage temperature is between 60 - 90 ° F. At lower temperatures, viscosity will increase, making pumping and mixing more difficult. At higher temperatures, shelf life can be adversely affected. Drum storage should be in a dry area, out of direct sunlight. Partially used drums should be tightly closed, to prevent contamination.

Safe Handling

Chemically resistant gloves and eye protection should be used when handling or using chemical binders. Material Safety Data Sheets are available for all products. Drum labels also contain handling information. Furan resins will react in a violent exothermic reaction with the acid catalysts or other acids. Do not mix furan resin with any acid except on sand during use.

Technical Service

Let HA International be the best solution for your foundry by providing innovative products, in-depth technical assistance, and a diverse product line specially formulated for any foundry application. Both our in-house and field experts are available to assist you with your most challenging foundry applications. Contact your sales representative for additional technical information.

For Emergency Medical Assistance Please Call:
Health & Safety Information Services: 1-866-303-6949

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION BY SELLER, except that the product shall conform to contracted specifications, and that the product does not infringe any valid United States patent. The information provided herein was believed by Seller to be accurate at the time of preparation or prepared from sources believed to be reliable but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether to product delivered or for non-delivery of product and whether based on contract, breach of warranty, negligence or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.