

Waterborne texture paint For worldwide success!

水性纹理漆 获得世界成功!



Valued work for individual solutions and highest reqirements!

WARNECKE & BÖHM have specialized as customer orientated and innovative manufacturers to meet the highest requirements of industrial enterprises worldwide. For many years we have been dedicated to an environmentally friendly paint process and the development of Waterborne Paints and Ultra-High-Solid (UHS) Systems. In comparison with the traditional solvent based paints our field-tested Waterborne and UHS Systems provide all end users with a high-quality alternative for the future. The waterborne WARNEX is a texture paint for professional loudspeaker cabinets and is one of the top products on the international market setting new targets both in application as well as in the result.

A specialist in texture and structural paints and at the same time market leader in the area of texture paints for loudspeaker cabinets, WARNECKE & BÖHM have been combining for over 120 years economy, ecology and innovative product developments. We are the reliable problemsolving partner in co-operation with our customers: advice from our laboratory about solutions, quality-assured manufacturing process, flexible handling and on-time delivery.

Try us. We are looking forward to your inquiry!

Quality, Creativity and Economy of the System: WARNEX

The single-component waterborne WARNEX with the environmentally friendly surface coverage for Professional Loudspeaker Cabinets has its place worldwide among the leading paint-systems. WARNEX gives your product an optimal protection against surface damages, minimizing your manufacturing cost through simple and effective application techniques. Customers all over the world are impressed by its attractive texture and endurance.

Our customers in Europe, USA and Asia rely on these characteristics! They know that they can trust the product quality of WARNECKE & BÖHM as well as our long experience and reliability as exporter and trading partner with the best references.



Personal and individual: Services by WARNECKE & BÖHM

SALES

The individual contact with our sales staff makes sure that your requirements are dealt with in a quick and reliable way. You will always be able to contact a competent contact person who will take care of you personally.

Apart from the cost-effective direct sales, we can also offer, upon request, alternative ways of distribution to meet your personal requirements.

APPLICATION TECHNIQUE

If necessary our application technicians will advise you at your premises to make sure that you will achieve the required results under your individual paint shop conditions. We can therefore show you during these workshops the simple and fast as well as labour-cost saving application of WARNEX in practice.

LOGISTICS AND SAFETY

As a waterborne paint system WARNEX is not classified as dangerous merchandise! Therefore your delivery can always be dispatched in a flexible cost-effective way according to your requirements: by air, sea or land.

Frost resistant packaging during the winter months is always provided.

LABORATORY

Members of our laboratory are available for all inquiries as well as for blending special colours. They will always find the best solution, matching your requirements.

QUALITY CONTROL

All our products are subject to a comprehensive quality management and control. All texture paints, processes and services are certified according to DIN EN ISO 9001:2000 with Registration Number 1751151. Our comprehensive quality management is your market advantage.

Warnecke & Böhm offer unique products and first class service. Talk to us about your problems and your requirements.

With our experience and know-how we will find a personalized solution for you!





WARNEX: Our market advantage - Your market advantage

Paint your loudspeaker cabinets in an attractive, effective and high calibre way. Texture – either coarse or fine – the exclusive and high quality effect of WARNEX will help you gain market shares and will show what's in your loudspeaker:

Top-class quality and added value!

We have developed this innovative product range exclusively for our customers. We became market leaders – and you too can achieve a market advantage with WARNEX!

The world market for loudspeakers has high demands concerning price and quality, aesthetics and endurance of the paint. Place yourself in the top segment worldwide.

8 WARNEX advantages for your worldwide success

The world market for loudspeakers has high demands concerning price and quality, aesthetics and endurance of the paint. Place yourself in the top segment worldwide.

WATERBORNE

Low solvent emission, environmentally friendly.

1 COMPONENT

No potlife restrictions, no messy weighing or mixing necessary.

FAST DRYING TIME

Touch dry after 20 minutes, ready for handling after 2-3 hours. Depending upon film thickness, temperature, relative humidity, air circulation and surface properties.

GOOD RESISTANCE

Good resistance against chemicals as well as mechanical wear.

VARIABLE TEXTURE EFFECTS

Different textures can be achieved with the same paint.

RECOATABLE AND EASY "TOUCH UP"

Damaged surfaces can be easily "touched up".

NO SANDING NECESSARY

When producing a "spattered texture" on wood based surfaces i.e. MDF, birchply.

COST SAVING

Cut cost because of: fast drying time, eliminating the primer and sanding, lower fire insurance premiums.



WARNEX: optimal for standard materials

WOODEN SURFACES

For the application on MDF, plywood, multiplex of birch or other similar wooden products. No special preparation, primer or filler is needed.

FERROUS / NON-FERROUS SURFACES

WARNEX texture paint should be used in combination with our waterborne WARNEX primer (Product Series 72) for optimum adhesion.

PLASTIC / COMPOSITE SURFACES

An adhesion test is required for plastic/composite materials. From case to case WARNEX primer (Product series 72) is required.

WARNEX:

simple and economic application

SUBSTRATE: MDF - BIRCHPLYWOOD - MULTIPLEX AND OTHER WOODEN SURFACES

In order to ensure the adhesion of a single coat, the substrates have to be clean and dry.

PASTE FILLER / PUTTY:

It is not recommended to use a paste filler or putty on larger areas as these tend to chip off easily. Only the minimum quantity of paste filler or putty required for spot repairs should be applied and afterwards an carefully sanding to the level ground is recommended.

COVERAGE OF SMALL DAMAGES IN THE SURFACE:

Being a time saving texture paint, the Warnex System will cover small surface damages only when the second spattered coat is also applied. A base coat with excessive thickness will not give any advantage in this case.

Wood fibres or grains may stand up especially on the cut ends. This will require first a precoating of these edges, subsequent sanding and only then applying the base coat.

APPLICATION:

Excessive thickness of the layer of the basecoat on the substrate may be subject to cracks under too high temperatures, humidity and/or strong air movement. The application should be done continuously and fast to avoid overspray which may settle on the coated surface causing a rough sandpaper like surface.

CLEANING THE AIR CAP:

After a short period of time the built up overspray on the air cap (spray gun air nozzle) must be cleaned with solvent and a paint brush. Otherwise the result of the texture may not show the required standard.







WARNEX: enhancing textures

TEXTURE FORMING:

The "spattered texture" is the result of 2 coatings which are applied in a sequence of 15 – 20 minutes* between the base and the spattered coating:

I. CONDITIONS FOR THE BASE COATING:

Nozzle diameter: 0,078 inch 2,0 mm
Airpressure: 28 – 57psi 2 – 4 bar
Materialpressure: 28 – 71 psi 2 – 5 bar
Spraying Distance: 1 ft 30 cm

II. CONDITIONS FOR THE SPATTERED COATING:

Nozzle diameter: 0,078 inch 2,0 mm Airpressure: 7-21psi 0,5 - 1,5 bar Materialpressure: 28-71 psi 2-5 bar Spraying Distance: 1,3 ft 40 cm

VARIATION OF TEXTURE FINISH:

parameter

air pressure low / high big dots / small dots
material pressure higher smoother surface
spraying distance with larger range rough and more pointed
more cross coats closer

texture finish

DRYING / FORCED DRYING:

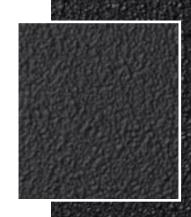
At room temperature:

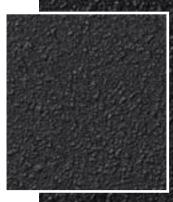
dust free = 15 – 20 minutes *
ready for handling = 2 – 3 hours *
ready for packing = 1 day *
through dry = 4 days *

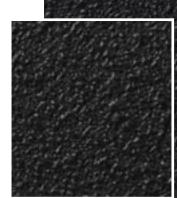
Oven drying:

Coated substrates may be heated at elevated temperatures of approx. 60°C to speed up drying process.

* Depending on film-thickness, temperature, humidity, air circulation, condition of the surface.









Technical Data Sheet



Product description waterborne single-component texture paint

Binder type water-acrylic
Gloss level half matt

Solids 52 - 55 %-weight Recommended dry-film thickness $70 \mu m$ (base coating)

120 μ m (total, base + spattered coating)

Theoretical covering rate 5,5 m²/kg (70 μ m, base coating)

3,2 m 2 /kg (120 μ m, total coating)

Practical average covering rate 1,5 m²/kg for Loudspeaker cabinets

VOC-rate Ø 160 g/l

Specific gravity $1,15 - 1,20 \text{ g/cm}^3$

Viscosity initial viscosity Rheolab 1400-1800 mPas / D701/s

application visc. ready for handling

Application parameters high pressure spraying system with a paint pressure tank

 $\begin{array}{ccc} \text{air pressure} & 2-4 \text{ bar} \\ \text{material pressure} & 2-5 \text{ bar} \end{array}$

materialhose diameter 13 mm internal-Ø

noozle size 2.0 mm cross coats $1 - 1 \frac{1}{2}$ spray distance 30 - 40 cm

thinner De-ionised / distilled water (if needed)

Spraying equipment must be thoroughly cleaned with water directly after use.

Drying

dust free ready for handling through dry thermal forced drying oven curing

15 - 20 min 2 - 3 hours 4 days $60 \text{ min} / 60^{\circ}$ -

Crecirculated air

Depending on: air and object temperatures, film-thickness, relative humidity and air movement.

Substrate

Adhesion on woods such as MDF, birch plywood und many types of plastics. In any case it is recommended to do an adhesion test.

Extras

WARNEX texture paint has a high viscosity demanding the use of a paint pressure tank. Because of the fast initial drying, a closed system is required.

Storage

Frost free, max. 12 months in original unopened containers.

Important application instructions

- PAINT PAILS SHOULD BE CLOSED CAREFULLY IMMEDIATELY AFTER OPENING
- MATERIAL SHOULD BE STIRRED WELL BEFORE USING
- PAINT MUST NOT BE DILUTED!

EQUIPMENT – all spraying equipment must be made of stainless steel:

The WARNEX texture paint has a high viscosity demanding the use of a paint pressure tank. Because of the fast initial drying, a closed system is required. The material hose should not be longer then approx. 5 meters and should have at least a 13 mm ($\frac{1}{2}$ inch) internal diameter for optimized application speed.

An industrial spray gun for paint pressure tank is recommended.

HOW TO CLEAN THE SPRAY EQUIPMENT?

Ordinary tap water can be used for cleaning the equipment as long as the paint is wet.

The material hose has always to be cleaned with water only !! (Material hose is only for the use for waterborne paints). Air cap (spray gun air nozzle) has to be cleaned with solvent because of built up overspray. Those parts of this spraying equipment which could not be cleaned with water in the first step must be cleaned with solvent in a second process.

HOW OFTEN SHOULD THE SPRAY EQUIPMENT BE CLEANED?

It is recommended to clean the spray equipment regularly to assure that no paint build-up can be found inside the system. Using a closed system like a material pressure tank, the cleaning intervals may be extended. Please make sure, that only original fresh paint is used and that the pressure pot system will not run empty.

COAGULANT:

Paint cabins fitted with a water wall need to have the correct coagulant for the application of WARNEX (high risk of foaming). As the coagulant has to match the requirements of your specific painting environment, you need to contact your supplier, giving him samples of WARNEX in order to enable them to find the correct coagulant.

SHELF LIFE:

We guarantee a shelf life of 12 months (see production date on container) in originally sealed containers and frost-free storage.

Do not use the paint any more:

- if infected with bacteria (change or loss of colour, foul odour)
- if there is an excessive loss of viscosity
- if there is a dry film (skin) on the top of the paint
- if the paint has been exposed to freezing temperatures (lumps in the paint)

ALL INFORMATION GIVEN IS BASED ON THE CURRENT STATE OF OUR KNOWLEDGE AND IS INTENDED TO INFORM ABOUT OUR PRODUCTS. THEY ARE NOT INTENDED TO ASSURE CERTAIN PROPERTIES OF THE PRODUCTS FOR DEFINED APPLICATIONS. CLIENTS AND USERS HAVE TO ACT RESPONSIBLY AND ASSESS THE SUITABILITY OF OUR PRODUCTS IN THEIR OWN RIGHT FOR THE REQUIRED PURPOSE OF APPLICATION.

