

Hydroclear

Water Based Lacquer

#166355

Description

Hydroclear is an environmentally friendly water based air-drying lacquer that is applied to give a clear attractive coating on metal surfaces. The lacquer finds wide usage on passivated zinc and zinc alloy coatings as well as on hot dip galvanized zinc.

Hydroclear helps to keep the gloss and surface character of the fresh hot-dip galvanized components and very effectively gives long term protection against the formation of white corrosion products. The transparent coating can also be used as a pre-treatment prior to powder-coating or wet painting and thereby improve the paint adhesion performance

Hydroclear is suitable for immersion, spray or curtain application. It can be applied on dry surfaces as well as 'wet-on-wet' process lines.

Features

- totally free of chromium
- clear coating
- long-lasting gloss protection
- protection against white rust formation
- good draining properties
- long bath life
- easy-to-strip (e.g. by hot alkaline MacDermid cleaners)

IMDS 974826



1. Technical Data

Solids Content	Approximately 30%.
pH 8.0 to 9.0	(adjusted with dilute ammonium hydroxide solution).
Specific Gravity	1.06 at 20 °C.

2. Operating conditions

Concentration	8 – 15 %
pH value	8 – 9
Temperature	20 – 30 °C
Drying temperature	20 – 90 °C
Drying time	depending on the drying time

The component should be cooled below 70°C before application of the **Hydroclear**.

3. Equipment

Tank

We recommend the use of stainless steel, rubber lined steel or plastic (PVC or PP) tanks.

Agitation

Due to the short treatment time either mechanical movement of the component or the solution is recommended. Mechanical agitation is strongly recommended to reduce the risk of bacteria growth. Air agitation is to be avoided.

Filtration

In order to ensure a long bath-life we recommend filtration of the solution using a 50 µm bypass filter.

4. Solution Make-up

Fill the tank with the amount of water needed then add the calculated quantity of **Hydroclear** and mix thoroughly. Prior to the make-up the water quality should be checked regarding pH value (should be between 7 – 8) and hardness (Ca/Mg content).



5. Control and maintenance

The life of the bath and the consumption of **Hydroclear** are highly dependent on the drag-in of the previous process stages. Thorough water rinsing prior to the application of **Hydroclear** is important to remove flux and acidic residues. The pH value is mainly determined by the drag-in of these residues and may need to be adjusted using ammonia solution (5% v/v).

The concentration of **Hydroclear** can be determined by analysis.

Under certain operating circumstances **Hydroclear** may support the growth of microbiological cultures. Should this situation arise MacDermid can recommend the addition of an appropriate biocide.

In some applications, due to entrained air in the Hydroclear solution the addition of an antifoam agent may be required.

6. Analytical Control

Determine the oven dry mass of a 10 ml sample dried at 150 °C for min. 2 hours.

Oven dry mass X 33,3 = Vol-% **Hydroclear**

7. Safety In Handling And Use

MacDermid recommends that the company/operator read and review the MacDermid material safety data sheets for the appropriate health and safety warnings before use. Material safety data sheets are available from your local MacDermid representative.

8. Storage

Hydroclear must be stored between 5 and 30 °C.

9. Effluent

It is recommended that waste water treatment is carried out to conform to the specific requirements of the local authority. Advice on how to meet these requirements, once known, can be obtained from MacDermid.



Disclaimer

Any information given here relating to Health & Safety should be regarded as general advice and is not to be regarded as comprehensive or definitive.

Every user should also be in possession of Safety Data Sheets for each individual product/chemical used. These are available for all products sold by MacDermid plc.

The Safety Data Sheet contains the definitive advice.

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July 2008

