

## *The solution for decorative design – uncompromising, yet economical!*

Colour is a fundamental element to communicate moods. Therefore modern living and work environments are being arranged along colour conceptions that match all components of a room. Vases, tealights, candle holders and other decorative objects made of glass serve as links between the ample surfaces of walls, flooring, and furniture – thus they are an essential part of the furnishing and unthinkable to live without.

Especially for this market we have developed our product line Hydrodecor. Hydrodecor opens new possibilities in the design of glassware. It's the right choice for objects that demand an unlimited colour range, extravagant designs, or special surfaces as well as a high resistance against a lot of chemicals or food ingredients. Coating with Hydrodecor is the economical and environment-friendly alternative to pigmented glass.

Objects coated with Hydrodecor feature the durability that is required for decorative glass items, e.g. 15 to 20 cycles in the household dishwasher. Hard to distinguish optically from pigmented glass, Hydrodecor supplies an unlimited variety of colours and effects and thus allows the production of decorative glass objects with the highest aesthetic demands.

A broad application window has been given great importance in the development of Hydrodecor. Thus, application is easy and economical with a wide range of machinery parameters.





## PRODUCT VERSIONS AND COLOURS

Hydrodecor is available in the following product versions:

**HYDRODECOR GL540**

highly brilliant  
transparent, opaque, or hiding

**HYDRODECOR GLM540**

mat  
similar to an etched surface,  
transparent to hiding

Hydrodecor GL540 und GLM540 are available in an assortment of basic colours that enables our customers to mix any desired colour shade. Special colours according to the customer's specification, e.g. from the common colour charts or sample items can be produced short-term.

All basic colours of GL540 and GLM540 are mixable in any ratio. This allows on one hand the production of a nearly unlimited variety of colour shades, on the other hand it permits finishes with smooth transitions from one colour to another.

Beside the basic colours you can choose from a multitude of effect coatings like metallic colours, gold, silver, copper, neon colours or pearl effects. Effect coatings may show reduced durability. Please conduct tests.

## PROPERTIES

Hydrodecor GL540 and GLM540 are high-class organic one-pack water borne coatings with outstanding properties:

- Very good adhesion to glass
- Hard, viscoplastic surface with excellent mechanical characteristics
- The basic colours of our product line Hydrodecor show preeminent light fastness (indoor).
- Sufficient dishwasher resistance for decorative objects of 15 to 20 cycles
- The coatings are long-term temperature resistant up to 120°C.
- Good resistance against chemicals according to DIN ISO 2836, good solvent resistance, good resistance against alkalis and acids
- The coatings are free of heavy metals und other toxic substances and comply with the requirements of DIN EN 71 part 3 regarding the migration behaviour. The requirements of I KEA (IOS-PRG-0021 2.2 Glassware) for household glass without direct contact to food are being complied.



## TECHNICAL REQUIREMENTS AND APPLICATION GUIDELINES

STORAGE AND SHELF LIFE:	Hydrodecor should be stored in original containers between +5°C and +25°C. Appropriate storing provided, shelf life is minimum six months.
VISCOSITIES:	Hydrodecor is usually delivered ready-to-use; for further information please consult the technical information sheet.
SUBSTRATE:	The precondition for proper finishing results is a clean glass surface, i.e. free from fat, dust, finger prints, or slip agents (end coating). Demineralisiertes (deionisiertes, destilliertes, vollentsalztes) Wasser
THINNING / CLEANING:	Demineralized (deionised, distilled, fully desalted) water
NOZZLE SIZE:	manual spray gun: 0.8 to 1.5 mm or automatic application: 0.5 to 1.0 mm For effect coatings please consult technical information sheet.
PRESSURE:	approx. 3 to 4 bar (atomisation)
PAINT PRESSURE:	max. 1 bar, usually 0.6 bar
RECOMMENDED FILM THICKNESS:	18 to 25 µm dry film
<p>During application the object as well as paint and spraying equipment must have a temperature of min. 15°C. It is possible to varnish pre-heated pieces – for proper flow the pieces should not be heated above 40°C though. Warm surfaces speed up evaporation and thus result in thicker layers.</p>	
ENVIRONMENTAL CONDITIONS:	We recommend 20°C to 28°C for object, paint and spraying equipment and a relative humidity of 55 to 70%.
CURING CONDITIONS:	<p>Hydrodecor cures in a temperatur range of 170 to 190°C, e.g.</p> <p>30 Min.   at 170°C object temperature 20 Min.   at 180°C object temperature</p> <p>A pre-drying at 30 to 80°C for 8 to 10 Min. is recommended to prevent the formation of blisters. No post curing at room temperature. In case of insufficient crosslinking, proper curing can only be accomplished by reheating to temperatures above 160°C.</p>
<p>Please consider that the heat-up time may vary significantly depending on wall thickness. We recommend checking the degree of curing by the following test: the coating must not soften after 16 to 24 hours storage in cold water. If softening occurs, the curing is not completed and additional baking is required.</p>	
SAFETY INFORMATION:	<p>Hydrodecor is not a dangerous material with respect to the German chemical regulations as well as the corresponding EU rules. This product, therefore, does not require any special labelling. It is not classified dangerous transport material.</p> <p>Please consult the safety data sheet for Hydrodecor. It contains information for the handling, product safety and the industrial hygiene of this product.</p>



## DESIGN EXAMPLES:

These are only a few examples of the multitude of application and design options with Hydrodecor:



Note! The information submitted in this publication is based on our current knowledge and experience. The provided information does not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislations are observed.