Technical Information

Hesse Lignal
inspiring you
Hesse GmbH & Co. KG, Warendorfer Str. 21, D 59075 Hamm
www.hesse-lignal.de

General: Thinners and cleaning agents

Thinners

There are many different compositions of thinners for various applications. The right choice of thinner is crucial to obtaining a good result when coating. We differentiate between thinners used to adjust the viscosity of a lacquer and thinners used to clean equipment, so-called cleaning agents or equipment cleaners.
In addition to rapidly evaporating and slowly evaporating thinners, a distinction is also made between strongly dissolving and weakly dissolving thinners.
To make choosing the right thinner easier, this Technical Information sets out an overview of our product range with a summary of their most important properties.

Evaporation rate

A thinner is often a mixture of various solvents. A thinner's evaporation rate depends on the solvents used in its formulation. Every solvent has an individual evaporation rate, which is shown as a number/value. This evaporation rate is based on a comparison with the most rapidly evaporating solvent, ether. A solvent with evaporation rate of 2 accordingly evaporates twice as slowly as the same quantity of ether under the same conditions (temperature, ambient humidity and air movement).
We roughly divide the evaporation rate into five groups:

Very fast	evaporation rate	< 5
Fast	evaporation rate	5 - 10
Medium	evaporation rate	10 - 35
Slow	evaporation rate	35 - 50
Very slow	evaporation rate	> 50

Solvent power

The solvent power indicates how strongly the thinner can release a binder from the coating or lacquer. This is deduced from the quantity of thinner needed to dilute a coating or lacquer. Only a little is required to thin a defined lacquer in an identical fashion when using a solvent with high solvent power, significantly more for a solvent with low solvent power. A good cleaning agent contains a solvent with high solvent power, to ensure that dried coating residues can be dissolved and removed.
There are very many different types of binder, so many types of thinner are needed to suit these.

The combination of solvents is what gives a thinner its specific properties and therefore determines its suitability for an application.

Hesse Lignal
inspiring you
Hesse GmbH & Co. KG, Warendorfer Str. 21, D 59075 Hamm
www.hesse-lignal.de

General: Thinners and cleaning agents

Aromatic compounds

Aromatic compounds are substances which were originally ingredients of many thinners. Measures are though increasingly being introduced on an international level to prevent the use of aromatic compounds.

VOCs

VOCs are organic compounds with a high vapour pressure and low water solubility. They evaporate quickly at normal temperatures, but contribute to indoor and outdoor air pollution and can cause health risks. The use of VOCs is therefore avoided wherever technically possible.

Special thinner

In addition to the “standard” thinners included in this Technical Information, the Hesse product range contains further special thinners for unusual applications.
Please contact your Hesse representative if you can’t find the right thinner for your application. You can also use our service hotline at service@hesse-lignal.de or by calling +49 2381 963 846.

HYDRO Thinner

Suitable for thinning or retarding HYDRO lacquers.

Evaporation rate	Product number	Application
Medium	HZ 70	Optimiser, dilutes more strongly than water (maximum 5 %) *
Very slow	HZ 5-56	Standard retarder (maximum 3 %) **

Hesse Lignal
inspiring you
Hesse GmbH & Co. KG, Warendorfer Str. 21, D 59075 Hamm
www.hesse-lignal.de

General: Thinners and cleaning agents

PU Thinner

Suitable for thinning PU lacquers.

Evaporation rate	Product number	Application
Very fast	DV 4900	Universal fast thinner
Fast	DV 4994	Medium-fast standard thinner *
Medium	DV 4935	Medium-fast thinner, somewhat longer that DV 4994
Slow	DV 4909	Standard retarder
Very slow	DV 4981	Very slow thinner

Proterra Thinner

Suitable for thinning Proterra and Hesse oils.

Evaporation rate	Product number	Application
Fast	GV 1701	Fast thinner for Proterra RESIT
Very slow	OV 1200	Thinner for Proterra and Hesse oils *

Cleaning agents

Equipment cleaner

RV 1	Equipment cleaner
ZD 82	Equipment cleaner with high solvent power *
HV 6917	Equipment cleaner for HYDRO coating lines *
HV 6904	Equipment converter for switching from solvent to Hydro lacquer *
UY 7000-A	Cleaning agent for UV lacquers for roller coating, non-drying ***
UY 7100-B	Cleaning agent for UV lacquers for roller coating and sprayers *
UY 7111	Cleaning agent for reflectors in UV lamps

Belt cleaner

HY 6992	HYDRO belt cleaner concentrate *

Hesse Lignal
inspiring you
Hesse GmbH & Co. KG, Warendorfer Str. 21, D 59075 Hamm
www.hesse-lignal.de

General: Thinners and cleaning agents

Glass cleaner

HS 6601	Glass cleaner for use prior to finishing with HYDRO Glass lacquers *
ZD 101	Glass cleaner for use prior to finishing with PU Glass lacquers *

Mixing equipment cleaning agent

ZD 55	Cleaning agent for paste mixing equipment *

VOC-free cleaning agents
Cleaning your work tools with the specified VOC-free cleaning agent enables any remaining film to be removed by the solvent-based cleaner. Cleaning agents must not be mixed with lacquers, so please ensure that pumps and equipment are fully emptied.

* Aromatics-free
** Aromatics-free, for use at high temperatures and with insufficient ambient humidity
*** VOC-free

Note:
This information is purely advisory and is based on the best knowledge available after careful research in line with current state of the art technology. It is not legally binding. We also refer you to our Terms and Conditions.
The material safety data sheet as per regulation (EC) No. 1907/2006 is available.