LANXESS
Energizing Chemistry

TECHNISCHE INFORMATION

Adimoll® DO

Adimoll® DO is a low-temperature-resistant plasticizer suitable for a large number of polymers, e.g. polyvinyl chloride (PVC), acrylonitrile-butadiene rubber (NBR), styrene-butadiene rubber (SBR) and polyvinyl acetate (PVAC).

Chemical composition: di-2-ethyl hexyl adipate (DEHA)

CAS Reg. No.: 103-23-1

Supply form: clear, low-viscosity liquid

Health and safety information: Relevant safety data and advice and information on the necessary labeling can be found in Safety Data Sheet No. 031732.

Specified properties:

Property	Nominal value	Unit	Test method
Refractive index n_D20	1.4473 ± 0.0008	-	DIN 53 491
Acid value	max. 0.1	mg KOH/g	ISO 3682
Hazen color value	max. 40	-	ISO 6271
Water content	max. 0.1	%	DIN 51 777

Additional product information:

Property	Typical value	Unit	Test method
Density at 20 °C	approx. 0.925	g/cm^3	DIN 51 757
Viscosity at 20 °C	approx. 13	mPa s	DIN 53 015
Saponification number	approx. 305	mg KOH/g	DIN 53 401
Pour point	approx. –65	°C	ISO 3016
Flash point (open cup)	approx. 205	°C	ISO 2592
Dissolution temperature	approx. 146	°C	DIN 53 408 (based on this method)
Boiling point at 5 hPa	approx. 215	°C	DIN 53 171

PLASTIC ADDITIVES

Storage stability

If stored properly, the product keeps for 1 year.

Packaging

Road tankers, drums, contents 190 kg

Solubility

Soluble in all common solvents, insoluble in water.

These raw material properties are typical properties and, unless specifically indicated otherwise, are not to be considered as delivery specification.

Instructions and recommendations for use

Density, viscosity and vapor pressure, for example, are important variables determining storage, the design of the storage tanks and the dimensions of pipelines and delivery pumps. Figures 1, 2 and 3 show the values for these properties.

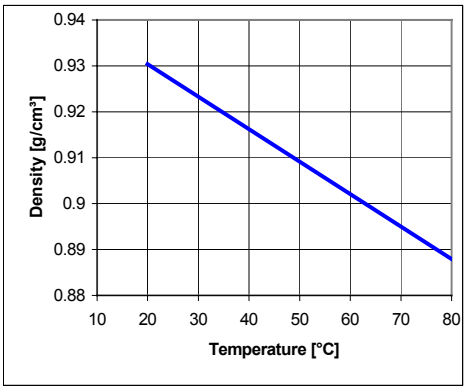

Fig.1: Density of Adimoll DO as a function of temperature (DIN 51757)

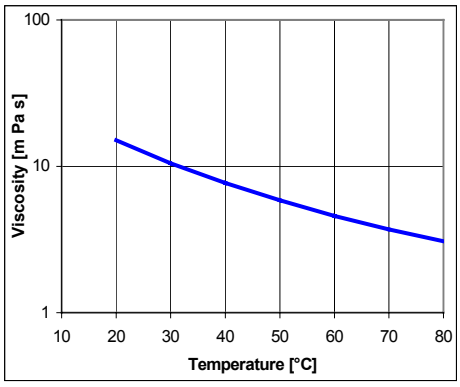

Fig. 2: Viscosity of Adimoll DO as a function of temperature (DIN 53015)

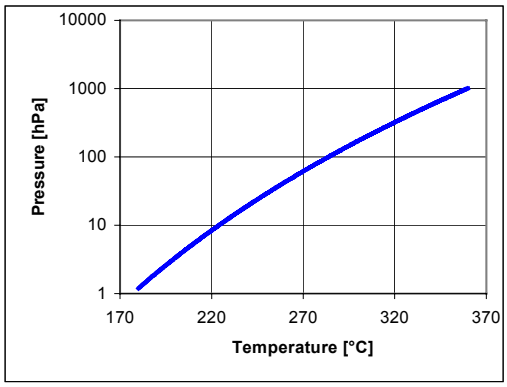

Fig. 3: Vapor pressure curve of Adimoll DO

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General properties

Adimoll DO has

- a very good plasticizing effect when used with PVC, PVAC, NBR and other polymers.
- low viscosity, which, in combination with its weak ability to solvate PVC, has a positive effect on the initial viscosity and storage stability of plastisols.
- good compatibility with PVB resins and other plasticizers used in the manufacture of PVB film.
- good compatibility with a large number of polymers such as polyvinyl chloride (PVC), polyvinyl acetate (PVAC), acrylonitrile-butadiene rubber (NBR), styrene-butadiene rubber (SBR), chloroprene rubber (CR), ethylene-vinyl acetate rubber (EVM) and ethylene-propylene copolymers (EPM).

Applications

Adimoll DO imparts

- very good low-temperature resistance to suitably plasticized compounds; this effect is clearly noticeable even when Adimoll is used in combination with other plasticizers.
- very good light stability to PVC compounds.

Adimoll DO is used for a wide range of articles based on polyvinyl chloride (PVC), acrylonitrile-butadiene rubber (NBR), styrene-butadiene rubber (SBR), chloro-prene rubber (CR), ethylene-vinyl acetate rubber (EVM) and ethylene-propylene copolymers (EPM).

Adimoll DO is used when regulations and recommendations governing food contacting applications need to be met.

It is particularly beneficial to use Adimoll DO when very good low-temperature resistance and light stability are required, together with high elasticity.

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Adimoll

Lanxess, D-51369 Leverkusen
Functional Chemicals High Performance Additives Plastic Additives

PLASTIC ADDITIVES