



Schill + Seilacher



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Technical Data Sheet

STRUKTOL® WB 300

STRUKTOL® KW 400

STRUKTOL® KW 500

STRUKTOL® AW 1

STRUKTOL® KW 600

Synthetic Ester Plasticizers

Properties		STRUKTOL WB 300	STRUKTOL KW 400	STRUKTOL KW 500	STRUKTOL AW 1	STRUKTOL KW 600
Appearance		yellowish liquid	light yellow liquid	light liquid	yellowish liquid	yellowish liquid
Density	[kg/m ³]	1100	1000	1000	1100	1100
Viscosity at 20 °C	[mPa·s]	400	15	50	140	13.5
Pour point	[°C]	-30	-60	-20	15	-70
Evaporation loss (2 h/ 160 °C)	[%]	5	5	0.5	5	5
Flash point	[°C]	210	195	235	215	180
Physiological behaviour		refer to safety data sheet				
Storage stability		at least 1 year under normal storage conditions				
Packing		200 kg drums				

Solubility

STRUKTOL KW400, STRUKTOL KW 500 and STRUKTOL KW 600 are easily soluble in aliphatic and aromatic hydrocarbons.

STRUKTOL WB 300 and STRUKTOL AW 1 are incompatible with aliphatic hydrocarbons, oils and greases.

The data given are typical values which are not intended for use in preparing specifications. For test methods refer to the corresponding supplement.

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Recommendations for Application

STRUKTOL ester plasticizers are special purpose synthetic plasticizers mainly used in compounds based on nitrile rubber.

The decreased compound viscosity facilitates further processing.

STRUKTOL WB 300 is used in NBR, ECO, and ACM to improve oil and fuel resistance.

Owing to its incompatibility with aliphatic hydrocarbons, mineral oils and greases STRUKTOL WB 300 will not leach from vulcanizates, which means that hardly any hardening or shrinkage of the vulcanized rubber is experienced.

It is highly compatible with phenolic resin modified NBR and NBR/PVC polyblends.

STRUKTOL KW 400 will improve the low temperature flexibility with all commonly used rubbers. For example, NBR vulcanizates can be compounded with flexibility at temperatures as low as -55 °C.

STRUKTOL KW 600 (chemically: Dibutyl-methylene-bis-thioglycolate) is used for the same purpose, giving even better low temperature flexibility, but shows slightly higher evaporation loss.

STRUKTOL KW 500 is used to improve both low temperature flexibility and heat-resistance.

STRUKTOL AW 1 is an antistatic plasticizer for mineral filled NBR-, SBR-, and NR-compounds. A surface resistance as low as 1×10^6 Ohms can be achieved for NBR based vulcanizates.

Partial crystallization and viscosity increase possible at low temperatures should be eliminated by briefly heating to ca. 60 °C.

Dosage

Depending upon compound composition and specification: 5 - 50 phr

STRUKTOL AW 1: 5 - 20 phr

Dry Liquids

The above plasticizers are available in Dry Liquid form on special request under the names of **STRUKTOL WB 300-DL**, **STRUKTOL KW 400-DL** and **STRUKTOL KW 500-DL**

The plasticizer content (on a silica carrier) is 70 % each.

This publication is meant to advise to the best of our knowledge. Due to the various applications and working methods we cannot accept any liability. Patent rights of third parties have to be considered in any case. This new leaflet replaces all previously printed documentation.

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