

Coldex Flow Improver

PROTECTION AGAINST COLD FOR HEATING OIL HEL

Coldex protection against cold is an additive for middle distillates (such as Diesel fuel, extra light heating oil), which improves (decreases) the threshold of filterability (CFPP) as well as these products' pour points.

The exact output depends on the particular composition of the diesel fuels respectively heating oils EL. The following values were achieved with commercially available products.

	CFPP
heating oil EL/diesel (low paraffin content)	- 2°C
Coldex to heating oil EL/diesel (1 : 4000)	- 8°C
Coldex to heating oil EL/diesel (1 : 3000)	- 10°C
Coldex to heating oil EL/diesel (1 : 1000)	- 15°C
Coldex to heating oil EL/diesel (1 : 800)	- 18°C

	CFPP	pour point
Heizöl EL/Diesel (hoher Paraffingehalt)	- 9°C	- 20°C
Coldex to heating oil EL/diesel (1 : 1000)	- 15°C	- 29°C
Coldex to heating oil EL/diesel (1 : 600)	- 20°C	- 31°C
Coldex to heating oil EL/diesel (1 : 400)	- 22°C	- 33°C

Most commonly **Coldex** is added at the ratio of 1 : 1000 to diesel fuel and heating oil EL, the decrease of thresholds of filterability compared to commonly available middle distillates without additives being ca. - 10°C.

Addition:

Coldex is mixable with diesel fuel and heating oil EL in every ratio.

1. In refineries and centres of distribution, the addition is carried out ideally by dosing pumps into the respective tank supply pipes.
2. The addition to a full tank is possible, too. In that case, the middle distillate should be turned by a pump within the tank, or the addition should take place before siphoning the next tank car into the storage tank, to ensure maximum movement of the tank contents.
3. When adding **Coldex** into the tank car before transport, the mixing occurring during haulage usually suffices. Therefore the additive can be added via dome cover before as well as after filling the vehicle with middle distillates.
4. When adding **Coldex** to the consumer tank, the addition ideally is made before siphoning the next middle distillate delivery to ensure maximum movement of the tank contents. Alternatively recirculation is recommended.
5. It is possible to add **Coldex** before or after fill-up to the tank of a diesel-engined passenger car. The mixing occurring while driving is sufficient.

However, on all accounts **Coldex** (as well as every other cold properties improver) has to be added to any middle distillate (diesel fuel, heating oil EL) at a temperature above the concerned product's cloud point (to avoid the forming of coarsely crystalline to spongy paraffines and to allow a finely crystalline, easily mobile paraffine precipitation in low temperatures.)

If – especially in tanks that are smaller, stored above ground and immediately exposed to cold – the middle distillate is exposed longer to a low temperature, which is below the cloud point (beginning of the paraffine precipitation), the tank content should be mixed sufficiently to ensure to take a homogeneous product.

Storage:

Cloud point: - 12°C, store frost-proof lagern. The flash point P.M. is at 61°C, therefore

Coldex is in accordance with hazard category III.