

ULTRA-LUBE™

Owing to their low solubility and excellent lubricant characteristics, ULTRA-LUBE™ products optimise the processing of rubber compounds. They are particularly effective in wetting out powder form chemicals thus enhancing their dispersion and distribution. In addition, ULTRA-LUBE™ products improve mould flow and mould release of moulded articles and the appearance of finished rubber articles.

Product	Appearance / Form	Chemical Composition	Dropping Point (°C)	Applications
ULTRA-LUBE™ 160	Beige pastilles	Composition of fatty acid soaps and amides.	102	It is highly effective in improving mould flow properties of rubber compounds. Besides, in most compounds based on different polymers, it works as an outstanding internal release agent for rolls, rotors and moulds.
ULTRA-LUBE™ 200	Off white pastilles	Blend of fatty acid derivatives and inorganic modifiers.	56	It helps to improve the dispersion of the "small" ingredients and filler systems of most rubber compounds. It also helps to improve the surface appearance of the finished rubber goods.
ULTRA-LUBE™ 220	Off white pastilles	High molecular weight aliphatic fatty acid esters.	58	Used to improve filler incorporation and release of most rubber compounds. Due to its low volatility, it can be used in heat resistant vulcanisates, e.g. based on H-NBR, ECO, FKM and ACM. Especially suitable for peroxide curing system.
ULTRA-LUBE™ 230	Off white pastilles	Blend of fatty acid derivatives and inorganic modifiers.	58	It shows outstanding performance as a dispersing aid for commonly used fillers in rubber compounding. It also works very well as an internal release agent that prevents sticking of compounds to rolls and rotors. It has a higher solubility limit than ULTRA-LUBE™ 200.
ULTRA-LUBE™ 330	Brown pastilles	Blend of high molecular weight esters and fatty acid soaps.	92	It prevents the agglomeration of fillers, which leads to better uniformity of physical properties.
ULTRA-LUBE™ 420	Off white to beige pastilles	Blend of fatty acid esters and soaps.	90	It provides very good lubricating effects and helps to improve flow and mould release. It shows outstanding effects in particularly high carbon black loaded EPDM compounds.

Product	Appearance / Form	Chemical Composition	Dropping Point (°C)	Applications
ULTRA-LUBE™ 480	Off white to beige pastilles	Blend of metal soaps and fatty acids esters.	93	The unique structure of ULTRA-LUBE™ 480 is particular suitable to improve flow and release of ECO compounds and finished articles.
ULTRA-LUBE™ 790	Off white pastilles	Combination of high molecular weight aliphatic fatty acid esters and special lubricants.	58	It is a processing additive designed as an internal lubricant for compounds based on specialty polymers. Due to its low volatility, ULTRA-LUBE™ 790 can be used in heat resistant vulcanisates, e.g. based on H-NBR, FKM and ACM.
ULTRA-LUBE™ 888	Brown pastilles	Mixture of various fatty acid soaps.	88	It is effective in improving flow properties of rubber compounds. This effect is based on a reduction of intermolecular friction.
ULTRA-LUBE™ IMX	Beige pastilles	Blend of primary amides of fatty acids and fatty acid derivatives.	65	It improves mould flow and extrusion characteristics of most rubber compounds, reduces stickiness on metallic surfaces and greatly enhances surface feel and finish.
ULTRA-LUBE™ PE110	Off white beads	Polyethylene wax.	110	It is a polyethylene wax for application in natural and synthetic rubber. It improves flow and processability. It also provides excellent release from metallic surfaces as well as improving surfaces of moulded articles.

ULTRA-LUBE™ √ = As Used √√ = Best Suited	ULTRA-LUBE™ 160	ULTRA-LUBE™ 200	ULTRA-LUBE™ 220	ULTRA-LUBE™ 230
Chemical Composition	Composition of fatty acid soaps and amides	Blend of fatty acid derivatives and inorganic modifiers	High molecular weight aliphatic fatty acid esters	Blend of fatty acid derivatives and inorganic modifiers
Functions				
Dispersing	√	√√	√√	√√
Mould flow	√	√	√	√
Prevent sticking to mill rolls and/or rotors	√√	√	√	√
Prevent mould fouling	–	–	√	–
Process enhancement				
Mixing (faster incorporation)	–	√	√	√
Extrusion	√	√	√	√
Calendering	√	√	√	√
Injection moulding	√√	–	√	–
Moulding (release)	√	√	√	√
Appearance	Beige pastilles	Off white pastilles	Off white pastilles	Off white pastilles
Dropping point, (°C)	102	56	58	58
Dosage (phr)	1 ~ 3	1 ~ 3	0.5 ~ 2	1 ~ 3
Sequence of addition				
At beginning of mix cycle with polymer(s)	–	√	√	√
With filler(s) and/or small ingredients	√	√	√	√
At last mixing stage	√	√	√	√
As used for:				
NR	√	√	√	√
SBR	√	√	√	√
BR	√	√	√	√
NBR	√	√	√√	√
NBR / PVC blend	–	–	√	–
H- & X-NBR	–	–	√√	–
CR	√	√	√	√
EPDM	√	√	√	√
IIR	√	√	√	√
ECO	√	–	√	–
CSM	√	√	√	√
CM	√	–	√	√
ACM	√	–	√	–
FKM	√	–	√	–

ULTRA-LUBE™ √ = As Used √√ = Best Suited	ULTRA-LUBE™ 330	ULTRA-LUBE™ 420	ULTRA-LUBE™ 480	ULTRA-LUBE™ 790
Chemical Composition	Blend of high molecular weight esters and fatty acid soaps	Blend of fatty acid esters and soaps	Blend of metal soaps and fatty acids esters	Combination of high molecular weight aliphatic fatty acid esters and special lubricants
Functions				
Dispersing	√	√	√	√
Mould flow	√	√	√	√√
Prevent sticking to mill rolls and/or rotors	√	√	√	√√
Prevent mould fouling	–	–	√√	√
Process enhancement				
Mixing (faster incorporation)	√	√	√	√
Extrusion	√	√√	√	√
Calendering	√	√	–	√
Injection moulding	–	√	√	√
Moulding (release)	–	√	√	√
Appearance	Brown pastilles	Off white to beige pastilles	Off white to beige pastilles	Off white pastilles
Dropping point, (°C)	92	90	93	58
Dosage (phr)	1 ~ 3	1 ~ 2	0.5 ~ 2	1 ~ 2
Sequence of addition				
At beginning of mix cycle with polymer(s)	√	√	√	√
With filler(s) and/or small ingredients	√	√	√	√
At last mixing stage	√	√	√	√
As used for:				
NR	√	√	–	–
SBR	√	√	–	–
BR	√	√	–	–
NBR	√	√	–	–
NBR / PVC blend	–	–	√	√
H- & X-NBR	–	–	–	√
CR	√	√	–	–
EPDM	√√	√√	–	–
IIR	√	√	–	–
ECO	–	–	√√	–
CSM	–	√	–	–
CM	–	√	–	–
ACM	–	√	–	√
FKM	–	–	–	√

ULTRA-LUBE™ √ = As Used √√ = Best Suited	ULTRA-LUBE™ 888	ULTRA-LUBE™ IMX	ULTRA-LUBE™ PE110
Chemical Composition	Mixture of various fatty acid soaps	Blend of primary amides of fatty acids and fatty acid derivatives	Polyethylene wax
Functions			
Dispersing	–	√	–
Mould flow	√	√	√
Prevent sticking to mill rolls and/or rotors	√	√√	√√
Prevent mould fouling	–	√√	–
Surface finishing	–	√√	√
Process enhancement			
Mixing (faster incorporation)	√	√	–
Extrusion	√	√	–
Calendering	√	√	√
Injection moulding	–	√	–
Moulding (release)	√	√	√√
Appearance	Brown pastilles	Beige pastilles	Off white beads
Dropping point, (°C)	88	65	110
Dosage (phr)	1 ~ 3	1 ~ 3	1 ~ 3
Sequence of addition			
At beginning of mix cycle with polymer(s)	√	√	√
With filler(s) and/or small ingredients	√	√	√
At last mixing stage	√	√	√
As used for:			
NR	√√	√	√
SBR	√√	√	√
BR	√	–	–
NBR	–	√√	√
CR	√	√	√
EPDM	√	√√	√
IIR	√	√	√
ECO	–	√	–
CSM	√	√	√
CM	–	√	√
ACM	–	√√	√
FKM	–	√	√