

# HANSA® RELEASE

CHT Group offers worldwide a broad range of release & lubricant additives based on hydrocarbon wax emulsions (ULTRALUBE®) and silicone products (HANSA®). Silicones provide an unrivaled slip and release properties for a variety of molding applications due to their low surface tension, low affinity to most molded materials and high temperature stability. Wax additives have high release and lubricant properties without affecting subsequent operations such as gluing or painting.

CHT manufactures release product solutions for molding thermoplastics, flexible foams, PU, rubbers, composites, food grade containers, wood, tires, metal diecast, and others.

These different applications make use of the following CHT chemistries that are available around the globe:

Wax emulsions	Chemistry	Active content	Melting range	pH value	Ionic character
ULTRALUBE E-7098R	High polar ester wax	30 %	65 °C	8.5	non ionic
ULTRALUBE D-840 R	Amide wax (EBS)	35 %	143 °C	6.5	non ionic
ULTRALUBE E-912 R	Oxidized HDPE wax	35 %	146 °C	9.5	non ionic
ULTRALUBE E-1058 R	Oxidized HDPE wax	35 %	125 °C	9.5	non ionic
ULTRALUBE T-969 R	PE-copolymer	32 %	95 – 105 °C	7.0	non ionic
ULTRALUBE E-3890 R	Paraffin / PE wax	30 %	118 °C	9.0	non ionic / anionic
ULTRALUBE E-345 R	Paraffin wax	50 %	58 – 80 °C	9.0	anionic
ULTRALUBE E-7080 R	Carnauba wax	30 %	85 °C	4.5	non ionic
ULTRALUBE D-V 3 R	Wax compound (HDPE / Amide)	42 %	60 – 140 °C	6.0	non ionic
ULTRALUBE D-V 3/10 R	Wax compound (PE / PTFE / Amide)	43 %	60 – 230 °C	6.0	non ionic
ULTRALUBE D-V 8310 R	Wax compound (PE / PTFE / Amide)	43 %	60 – 230 °C	6.0	non ionic
ULTRALUBE SG-30 R	Acrylic polymer / PE wax	32 %	-	8.0	non ionic / anionic
Polysiloxane emulsions	Chemistry	Active content	Emulsion type	pH value	Ionic character
EM 1478	Ultra-high molecular weight PDMS	50 %	micro	7.5	anionic
HANSA SME 7920	Reactive diamino-functional polysiloxane	40 %	macro	6.5	slightly cationic
HANSA SWE 3620	Alkyl-modified polysiloxane emulsion	35 %	macro	4.5	non ionic
Polysiloxane concentrates	Chemistry	Active content	Viscosity	N <sub>2</sub> -% / OH	Ionic character
HANSA ASR 7020	Reactive diamino-functional polysiloxane	100 %	2000 – 6000 mPa·s	0.2% N <sub>2</sub>	anionic
HANSA SW 3020 D	Alkyl-modified polysiloxane	100 %	200 – 400 mPa·s	-	non ionic
HANSA OS 4090	Reactive carbinol-functional polysiloxane	100 %	100 – 350 mPa·s	16 – 24 mgKOH/g	non ionic
HANSA SP 1050	Polyether-modified trisiloxan	100 %	20 – 60 mPa·s	-	non ionic
HANSA SP 1010	Polyether-modified polysiloxane	100 %	400 – 800 mPa·s	-	non ionic
HANSA SQ 2050D	Silicone quat	100 %	4000 – 14000 mPa·s	0.3% N <sub>2</sub>	cationic

Wax emulsions and silicones are used as release agents for several manufacturing processes in a wide range of industries.

From food processing to industrial production through medical devices and home cooking products, waxes and silicones are the typical release agents additives.

Wax emulsions	Chemistry	Properties	Application
ULTRALUBE E-7098R	High polar ester wax	High affinity to metal surfaces, spreading on hot surfaces, increase washability, clean molds, processable parts	Metal die casting, lubricants
ULTRALUBE D-840 R	Amide wax (EBS)	High affinity to metal surfaces, spreading on hot surfaces, anitblocking	Metal die casting, lubricants, hot melt adhesives
ULTRALUBE E-912 R	Oxidized HDPE wax	High release effect due to the high melt viscosity, especially at hot surfaces, high slip properties, antiblocking	Metal die casting, lubricants
ULTRALUBE E-1058 R	Oxidized HDPE wax	Release effect due to the melt viscosity, especially at hot surfaces, high slip properties, antiblocking	Metal die casting, lubricants
ULTRALUBE T-969 R	PE-copolymer	Good release effect, no reactivity to isocyanate	PU release
ULTRALUBE E-3890 R	Paraffin / PE wax	Good release effect, hydrophobic effect (water repellency), slip	General release, PU release
ULTRALUBE E-345 R	Paraffin wax	Good release effect, hydrophobic effect (water repellency), slip	General release, PU release
ULTRALUBE E-7080 R	Carnauba wax	Renewable raw material base, good release, good slip, hard wax, high regulatories	General release, food release
ULTRALUBE D-V 3 R	Wax compound (HDPE / Amide)	High lubricant properties, dry film	Non cutting lubricant operations, deep drawing of stainless steel
ULTRALUBE D-V 3/10 R	Wax compound (PE / PTFE / Amide)	High lubricant properties, dry film	Non cutting lubricant operations, deep drawing of stainless steel, higher wall thickness
ULTRALUBE D-V 8310 R	Wax compound (PE / PTFE / Amide)	High lubricant properties, dry film	Non cutting lubricant operations, deep drawing of stainless steel, higher wall thickness
ULTRALUBE SG-30 R	Acrylic polymer / PE wax	Good adhesion on different surfaces, high gloss transparent films, water repellency	General release, thin film coating
Polysiloxane emulsions	Chemistry	Properties	Application
EM 1478	Ultra-high molecular weight PDMS	Ultra high viscosity films, thermal resistance, lubricity	General release, tires production
HANSA SME 7920	Reactive diamino-functional polysiloxane	Good adhesion to surfaces, reactive (cross linking), high release effect, thermal stability, lubricity	PU release, general release
HANSA SWE 3620	Alkyl-modified polysiloxane emulsion	High release effect, thermal stability, coatability (slightly), higher organic character	Metal die casting, PU release, general release
Polysiloxane concentrates	Chemistry	Properties	Application
HANSA ASR 7020	Reactive diamino-functional polysiloxane	Good adhesion to surfaces, reactive, high release effect, thermal stability, lubricity	PU release, general release
HANSA SW 3020 D	Alkyl-modified polysiloxane	High release effect, thermal stability, coatability (slightly), higher organic character	Metal die casting, PU release, general release
HANSA OS 4090	Reactive carbinol-functional polysiloxane	High surface activity, non-sticking, suitable as reactive additive for special organic polymers like 2K PU	PU release, general release
HANSA SP 1050	Polyether-modified trisiloxan	Very good wetting effect, high surface activity, improves the adherence of coatings	Various formulations to achieve a better substrate wetting
HANSA SP 1010	Polyether-modified polysiloxane	Very good wetting effect, good spreading properties, stable to hydrolysis	Various formulations to achieve a better substrate wetting
HANSA SQ 2050D	Silicone quat	High adhesion on surfaces, high release effect, thermal stability, lubricity	PU release, general release