



SONGSTAB™

Liquid mixed-metal
stabilizers for flexible
suspension PVC

SONGWON is a leading specialist
in heat stabilizers for PVC.

To ensure the thermal stability of suspension PVC semi-rigid and flexible formulations during extrusion and calendering and enable the production of high-quality products with good heat and light stability, SONGWON has developed a variety of liquid mixed-metal heat stabilizers.

The comprehensive range of SONGSTAB™ stabilizers is designed to meet various requirements, such as high transparency, good self-lubrication and low odor. The stabilizers can be tailor-made to fulfill specific customer requirements.

It's all about **the chemistry™**



Songwon Industrial Co., Ltd.

SONGWON, which is headquartered in Ulsan, South Korea and operates group companies all over the world, has been developing, manufacturing and marketing a wide variety of additives and polymers for more than 55 years.

These include:

- Tin stabilizers (methyl, butyl and octyl + mercaptide and carboxylate)
- Liquid mixed metals BaCdZn, BaZn, CaZn, and kickers
- Solid CaZn stabilizers
- Co-stabilizers
- Plasticizers (DOA, TOTM and polymeric adipates)
- Lubricants and blends
- Antioxidants and UV absorbers
- Tin intermediates

Liquid mixed-metal stabilizers for flexible suspension PVC

SONGWON's liquid mixed-metal stabilizers are suitable for semi-rigid and flexible applications such as calendered films and extruded profiles/hoses as well as injection-molded and plastisol-based products, including artificial leather items and toys.

Liquid mixed-metal stabilizers generally contain co-stabilizers that provide optimum performance and advantages in processability, as well as offering lower migration and better light stability than their solid mixed-metal counterparts.

SONGSTAB™ stabilizers generate significant value for PVC manufacturers

🌀 SONGSTAB™ BZ-L155 is a powerful liquid barium-zinc (BaZn) stabilizer that offers very high transparency, combined with good heat stability, lubricity and light stability.

🌀 SONGSTAB™ BC-L540, a powerful liquid barium-cadmium-zinc (BaCdZn) stabilizer that offers good initial color, long-term heat stability and light stability, is suitable for both transparent and pigmented end applications.

🌀 SONGSTAB™ CZ-LF420 is a liquid calcium-zinc (CaZn) stabilizer that imparts high levels of heat stability and transparency and offers good processability. Developed to address the demand for stabilizers that comply with FDA regulations and are free from SVHC and TNPP, it is suitable for use in the production of food-wrap films.

SONGSTAB™ liquid mixed-metal stabilizers recommended for flexible suspension PVC applications

		Formulation						Two-roll mill condition	
		PVC resin [phr]	DOTP [phr]	DOA [phr]	ESBO [phr]	TiO ₂ (R) [phr]	Stabilizer [phr]	Roll temp. (°C)	Mixing time (min)
Liquid barium-zinc	SONGSTAB™ BZ-L155	100	30	–	2	–	2	180	3
Liquid barium-cadmium-zinc	SONGSTAB™ BC-L540	100	30	–	2	–	2	180	3
Liquid calcium-zinc	SONGSTAB™ CZ-LF420	100	–	34	12	–	1.5	180	3

Static heat stability (195°C)

Liquid barium-zinc	SONGSTAB™ BZ-L155
	Competitor A
Liquid barium-cadmium-zinc	SONGSTAB™ BC-L540
	Competitor B
Liquid calcium-zinc	SONGSTAB™ CZ-LF420
	Competitor C

10 min	20 min	30 min	40 min	50 min	60 min	70 min

Press heat stability – 5 mm sheet (200°C at 5 minutes)

70°C PVC cable	SONGSTAB™ BZ-L155
	Competitor A
90/105°C PVC cable	SONGSTAB™ BC-L540
	Competitor B
Transparent PVC cable	SONGSTAB™ CZ-LF420
	Competitor D

Color (Yellowness Index)	Transparency (Haze)
6.1	6.10
8.15	8.15
5.23	3.58
5.91	5.03
11.41	6.74
13.73	8.21

Dynamic heat stability (190°C)

Liquid barium-zinc	SONGSTAB™ BZ-L155
	Competitor A
Liquid barium-cadmium-zinc	SONGSTAB™ BC-L540
	Competitor B
Liquid calcium-zinc	SONGSTAB™ CZ-LF420
	Competitor C

5 min	10 min	15 min	20 min	25 min	30 min	35 min

SONGWON's portfolio comprises a variety of stabilizers for different end applications with diverse characteristics. Please contact our Technical Service and Development (TS&D) department for more details and advice on suitable products.



Check out our
official website



Check out our
WeChat account

For further information, please go to:

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SONGWON provides customers with warranties and representations as to the chemical or technical specifications, compositions and/or the suitability for use for any particular purpose exclusively in individual written agreements.

The facts and figures contained herein have been carefully compiled to the best of SONGWON's knowledge but are essentially intended for informational purposes only.

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