



SONGSTAB™
PVC stabilizers for wire &
cable applications

Calcium-zinc stabilizers
for PVC wire & cable

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 60 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
- Tin intermediates

Heat stabilizers for PVC wire and cable

Sensitive applications include electric power and telecommunication transmission as well as many in the automotive sector. Wires and cables for these end uses need to be resistant to extreme heat and widely varying conditions.

SONGWON's portfolio comprises numerous CaZn stabilizers suitable for different wire and cable temperature ratings with diverse characteristics such as initial color, long-term stability, transparency and lubricity.

SONGSTAB™ calcium-zinc stabilizers generate significant value for wire and cable manufacturers

- SONGSTAB™ CZ-SC320 was developed to ensure good heat stability and satisfactory water absorption on 70°C wires and cables. It has a shelf life of six months, which is longer than that offered by most competitive products on the market.
- SONGSTAB™ CZ-SC490 & SONGSTAB™ CZ-SC900 were formulated to provide good heat stability on wires and cables at 90-105°C and 105-125°C respectively. They combine high Congo red values and excellent electrical properties with low water absorption.
- SONGSTAB™ CZ-S39, which is designed for transparent wire and cable applications, offers good heat stability as well as high Congo red values and does not promote copper corrosion.

SONGSTAB™ calcium-zinc stabilizers recommended for PVC wire and cable applications

		Formulation						Two-roll mill condition	
		PVC resin [phr]	TOTM [phr]	DIDP [phr]	CaCO ₃ [phr]	TiO ₂ (R) [phr]	Stabilizer [phr]	Roll temp. (°C)	Mixing time (min)
70°C PVC cable	SONGSTAB™ CZ-SC320	100	–	40	40	0.5	5	180	5
90/105°C PVC cable	SONGSTAB™ CZ-SC490	100	–	40	40	0.5	5	180	5
105/125°C PVC cable	SONGSTAB™ CZ-SC900	100	40	–	30	0.5	10	180	5
Transparent PVC cable	SONGSTAB™ CZ-S39	100	–	40	–	–	5	180	5

Static heat stability (200°C)		10 min	20 min	30 min	40 min	50 min	60 min	70 min
70°C PVC cable	SONGSTAB™ CZ-SC320							
	Competitor A							
90/105°C PVC cable	SONGSTAB™ CZ-SC490							
	Competitor B							
105/125°C PVC cable	SONGSTAB™ CZ-SC900							
	Competitor C							
Transparent PVC cable	SONGSTAB™ CZ-S39							
	Competitor D							

		Congo red (200°C)	Water absorption (70°C x 7 days)
70°C PVC cable	SONGSTAB™ CZ-SC320	39 min	1.13%
	Competitor A	38 min	1.11%
90/105°C PVC cable	SONGSTAB™ CZ-SC490	50 min	1.04%
	Competitor B	49 min	1.03%
105/125°C PVC cable	SONGSTAB™ CZ-SC900	275 min	0.78%
	Competitor C	198 min	0.80%
Transparent PVC cable	SONGSTAB™ CZ-S39	79 min	–
	Competitor D	68 min	–

PVC heat stabilizers are just one product that improves the performance of wire and cable. SONGWON uses selected raw materials to develop, manufacture and supply a broad range of effect additives and specialty polymers that give wire and cable producers a competitive edge and help them meet their end-use requirements.

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
WeChat account

For further information, please contact:

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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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