





优质的产品 热情的服务  
崇高的信誉 真诚的合作

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#### 威海天宇新材料科技有限公司

地址：山东省荣成市凭海东路220号  
电话：0631-7512588  
邮箱：info@cn-tianyu.com  
网址：www.cn-tianyu.com

Weihai Tianyu New Materials Science And Technology Co.,Ltd.  
Address: No.220 East Pinghai Road, Rongcheng City,  
Shandong Province  
Tel: +86-(0)631-7519595  
E-mail: info@cn-tianyu.com  
Website: www.cn-tianyu.com

#### 山东昊宇新材料科技有限公司

地址：山东省威海市文登区广州东路79号  
电话：0631-7172988  
邮箱：info@cn-tianyu.com  
网址：www.cn-tianyu.com

Shandong Haoyu New Materials Science And Technology Co.,Ltd.  
Address: No.79 Guangzhou East Road, Wendeng District,  
Weihai, Shandong Province  
Tel: +86-(0)631-7172998  
E-mail: info@cn-tianyu.com  
Website: www.cn-tianyu.com

## 威海天宇新材料科技有限公司

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## 山东昊宇新材料科技有限公司

Shandong Haoyu New Materials Science And Technology Co.,Ltd.



## 公司简介

Weihai Tianyu New Materials Science and Technology Co., LTD. located in Rongcheng City, Shandong Province, Which was founded in 2001, covering an area of more than 30,000 square meters, construction area of more than 10,000 square meters, focusing on the development and production of rubber additives and rubber additives pre-dispersed masterbatch series products.

**The main products are:** rubber vulcanizing agent DTDM, powder (cream) film anttack agent, rubber additives pre-dispersed masterbatch series products. Among them, the annual output of rubber vulcanization agent DTDM is 4000 tons, and the annual output of rubber additives pre-dispersed masterbatch series products is 10,000 tons.

With the concept of scientific and technological innovation, quality first and service upmost, we constantly promote technological innovation, optimize product performance, and provide customers with high-quality new material products.

## 公司简介

Shandong Haoyu New Materials Science and Technology Co., Ltd. established in Shandong provincial Chemical Industry zone( Wendeng Chemical Industry zone, in Weihai) in 2021, which invested 180 million yuan,acquired more than 50,000 square meters of land, built more than 20,000 square meters of plant area, with advanced production workshop and Research & Developmental center, which has been completed and put into production.

**The main products :** rubber accelerator DCBS(DZ), NOBS(MBS), TBBS (NS), CBS(CZ) and so on.

Looking forward to the future, we will increase investment in scientific research, independent research and development and introduction of advanced technology, expand product scale, provide to customers with high-quality products, and effort to become an excellent supplier and service provider in related field.





### ISO 14001:2015 认证

环境管理体系认证证书  
Environmental Management  
Systems Certificate

### ISO 9001:2015 认证

质量管理体系认证证书  
Quality Management  
Systems Certificate



### OHSAS 18001:2007 认证

职业健康安全管理体系认证证书  
Occupational Health and Safety  
Management Systems Certificate

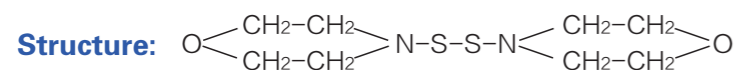




## VULCANIZING AGENT DTDM

**Chemical Name:** 4,4'-dithiodimorpholine

**Molecular Formula:** C<sub>8</sub>H<sub>16</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>



**Molecular Weight:** 236.2

**CAS NO.:** 103-34-4

**Properties:**

White crystalline or powder. Specific gravity: 1.32-1.38. No poison. Soluble in benzene, carbon tetrachloride, slightly soluble in acetone, gasoline, insoluble in ethanol, ethyl ether and water. Resolve when meet inorganic acid or alkali, store stably at room temperature. With fish odor. Touching the skin or mucous membrane can cause strong and lasting spicy feel.

**Application:**

DTDM can be used as vulcanizing in the natural rubber and all kinds of synthetic rubber, applicable in all kinds of dynamic products, usually used for the production of radial tire, engineering tire, bias tire, butyl inner tire, rubber seals and other high quality rubber products, and can also be used for highway asphalt stabilizer.

**Introduction:**

DTDM is the offering body of the sulphur. It will release a percentage of 27 active sulphur in the temperature of vulcanization; It will produce a high connecting effect to the rubber, part or whole replace the sulphur, so make the active sulphur gain an ideal physical machine function. That makes up half effective structure rubber resist not only fatigue but also oxidation. According to DTDM's special chemical structure in the vulcanization temperature, in addition to release active sulphur, so that make the rubber produce a high connecting function, morpholinyl, which has the second amine structure feature. This kind of free radical can not only resist heat and oxygen, but also delay coking time, so that speed up vulcanization. So, DTDM has a performance of vulcanized agent, promoter, anti oxidant and prevent coking comprehensive effect. So many rubber products manufacturers including domestic and overseas pay attention to DTDM.

**Package:**

Kraft paper and plastic composite bag, 25kgs/bag.

**Storage:**

In original closed package at 25°C room temperature under cool and dry conditions with good ventilation, avoiding exposure to direct sunlight, 12 months from date of production.

**Note:**

We can produce it in crystalline, powder, oil according to customers' request.

**Specification:** (Executive standard: HG/T 4389-2012)

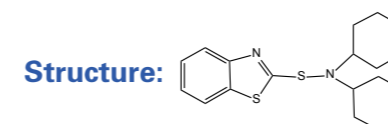
Item	Index
Appearance	White to light yellow power
Initial M.P., °C ≥	120.0
Loss on drying, % ≤	0.50
Ash, % ≤	0.30



## RUBBER ACCELERATOR DCBS(DZ)

**Chemical Name:** N, n-dicyclohexyl-2-benzothiazolsulfamide

**Molecular Formula:** C<sub>19</sub>H<sub>26</sub>N<sub>2</sub>S<sub>2</sub>



**Molecular Weight:** 346.55

**CAS NO.:** 4979-32-2

**Properties:**

Light yellow to pink powder or granula, relative density 1.26, soluble in acetone and other organic solvents, insoluble in water.

**Use:**

DCBS in the secondary sulfonamide accelerators, has better anti-burning performance, high safe performance in operation. DCBS is suitable for the processing of natural rubber and synthetic rubber, such as nitrile rubber, styrene butadiene rubber, butyl rubber, neoprene rubber, acrylic rubber, etc. DCBS is mainly used in tire, tape and shock absorber manufacturing.

**Package:**

Kraft paper and plastics composite bag, 25kgs/ bag.

**Storage:**

Cool and dry, well ventilated, away from direct sunlight, original sealed at room temperature storage period of 12 months.

**Description:** Accelerator DCBS(DZ) has different forms, such as granula, crystalline, micro powder.

**Specification:** (Executive standard: HG/T 4140-2010)

Item	Index
Appearance ( eye )	Light yellow to pink powder and granula
Initial melting point °C ≥	97.0
Heat loss% ≤	0.4
Ash content % ≤	0.4
Cyclohexane insoluble substance% ≤	0.5
Free amine% ≤	0.4
Purity% ≥	98.0

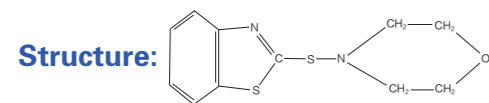




## RUBBER ACCELERATOR NOBS (MBS)

**Chemical Name:** N-oxydiethyl-2-benzothiazolidesulfonamide

**Molecular Formula:** C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>S<sub>2</sub>O



**Molecular Weight:** 252.30

**CAS NO.:** 102-77-2

**Properties:**

Light yellow or orange granula. Specific gravity 1.34-1.40, soluble in benzene, acetone, chloroform, insoluble in water, dilute acid dilute alkali.

**Purpose:**

NOBS (MBS) is a kind of after-effect high efficiency vulcanizing accelerator. In the processing and production of rubber, it can significantly improve the vulcanizing speed and effect, reduce the vulcanizing temperature and shorten the vulcanizing time. Safe processing, easy to dispersion. Suitable for natural rubber and synthetic rubber. NOBS(MBS) is mainly used in: automobile tire, industrial rubber products, rubber hose, rubber shoes, rubber gloves, rubber conveyor belt and other industries.

**Package:**

Kraft paper and plastic composite bag, 25kgs/ bag.

**Storage:**

Cool and dry, well ventilated, away from direct sunlight, original sealed at room temperature storage period of 6 months.

**Specification:** (Executive standard: GB/T 8829-2006)

Item	Index		
	Superior class	First class	Qualified class
Appearance	Light yellow or orange granules		
Initial melting point °C ≥	81.0	80.0	78.0
Heat loss% ≤	0.4	0.5	0.5
Ash content % ≤	0.2	0.3	0.4
Methanol insoluble substance % ≤	0.5	0.5	0.8
Purity b% ≤	97.0	97.0	—
Free amine% ≥	0.5	0.5	0.5



## POWDER ANTITACK

(SOLUBLE IN WATER AT ROOM TEMPERATURE)

**Description:**

Powder antitack prevents the adhesion of uncured rubber and milled sheets during storage. Powder antitack consists of inorganic fillers and active substances. It shows good wetting isolation properties on different softness and stickness rubber. It is well soluble in the rubber and there is no influence to flow behavior or other properties during vulcanization.

**Application fields:**

Powder antitack is suited for all kinds of elastomers.

**Application:**

For powder antitack, we recommend a concentration of approx 3.5 ± 1%, depending on the air temperature of machining workshop, rubber composition and shore hardness of the rubber mixture. High concentration is usual applied for sticking rubber in summer, whereas low concentration.

Powder antitack forms thin, flexible film on the surface of milled sheets. The film has good release properties and prevents the formation of dust, which means that it does not cause any problems during subsequent processing. Powder antitack only forms slight, soft-deposits on the equipment and these are easily removed. The product has anti-corrosive properties. There is no troublesome foam formation when it is mixed.

**Packing:** Kraft paper and plastic composite bag, 25kgs/bag.

**Storage:**

In original closed package at 25°C room temperature under cool and dry conditions with good ventilation, avoiding exposure to direct sunlight, 12 months from date of production.

**Further Information:**

Product technical information and data is based on the information available and does not constitute or imply a warranty or patent infringement of any kind. The user is responsible for testing product suitability prior to use in production.

**Specification:**

Item	Index
Appearance	White to light yellow power
PH (3.5% aqueous solution)	8~11
Ash content	60 ± 3% (2h/950°C)
Suspension	Suspended in water for 12 hours (3.5% aqueous solution), no deposits



# CREAM ANTITACK

(SOLUBLE IN WATER AT ROOM TEMPERATURE)

## Description:

Cream antitack prevents the sticking together of uncured sheets and blanks. Cream antitack is quickly and easily soluble in water. Good wettability between rubber compounds and antitack ensures a favourable separating behaviour whether the film is in a moist or dry condition. Cream antitack is also suitable for light-coloured and transparent products, since it causes no turbidity. The zinc stearate in cream antitack dissolves easily in hot rubber compounds or during the curing process in rubber; consequently the vulcanizates show no traces of the release agent. Cream antitack causes no problems during the processing. It also has no influence on the physical properties nor on the ageing behaviour of the vulcanizates.

## Application:

Due to its low viscosity, cream antitack can be directly diluted to the required concentration. It is recommended that cream antitack is diluted with water in the ratio 1:10 up to 1:20.

## Technical Data:

Composition: cream of particularly fine zinc stearate

Appearance: stable, white cream

Active substance content: 25~30%

Odour: practically none

Discolouration of vulcanizates: none

PH-value of the dilution 1:10 with water (20°C): 8.0~11.0

Solubility: dispersible in water

## Packing:

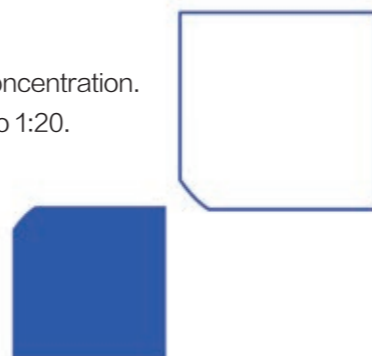
PE bag in carton, 25kgs/carton.

## Storage:

In original closed package at 25°C room temperature under cool and dry conditions with good ventilation, avoiding exposure to direct sunlight, 12 months from date of production.

## Further Information:

Product technical information and data is based on the information available and does not constitute or imply a warranty or patent infringement of any kind. The user is responsible for testing product suitability prior to use in production.



# PRE-DISPERSED MASTERBATCH

## Accelerator

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
CBS-70	N-cyclohexyl-2-benzothiazole sulfenamide	EPDM	Gray white granules	Highly active delayed-action accelerator. It shows excellent scorch resistance, great degree of safe processing and a fast cure.
CBS-80				
DCBS-80	N,N-dicyclohexyl-2-benzothiazole sulfenamide	EPDM	White granules	Sulfenamide accelerator with excellent scorch resistance. It produces good adhesion to metal, is compatible with natural and synthetic rubber, suitable for manufacture of thick tires, rubber belts, shockproof products, etc.
NOBS-80	N-Oxydiethylent-benzothiazole-2 sulfenamide	EPDM	Light yellow granules	Delayed-action accelerator. It shows fast cure, strong scorch resistance, safe processing, easy dispersion, and no blooming. It is suitable for natural rubber and synthetic rubber, and is not used in chloroprene rubber. Mainly used in tires, hoses, rubber shoes, conveyor and other products.
TBBS-75	N-tertiarybutyl-2-benzothiazole sulfenamide	EPDM	Gray white granules	Delayed-action accelerator, especially suitable for carbon black compounds with strong alkalinity. It shows safe processing, strong scorch resistance, fast cure, low toxicity, high efficiency and high tensile strength, can increase the proportion of synthetic rubber. It is an ideal substitute for NOBS, with excellent comprehensive performance. Mainly used in tires, rubber shoes, hoses, tapes, cables and other products.
TBBS-80				
MBT-75	2-mercapto-benzothiazole	EPDM	Light yellow granules	Accelerator for natural rubber and synthetic rubber with longer plateau of curing period. It can be used alone or in combination with dithiocarbamate, thiuram, guanidine, and other alkaline accelerators. Mainly used in manufacture of tires, tapes, rubber shoes and other products.
MBT-80				
MBTS-75	Dibenzothiazole disulfide	EPDM	Light yellow granules	Accelerator for natural rubber and synthetic rubber, which can produce flat and medium cure rate, has significant delayed action, will not vulcanize in early stage, and is safe to operate. Mainly used in manufacture of tires, hoses, rubber shoes, rubber canvas and other products.
MBTS-80				
DPTT-70	Dipentamethylene thiuram tetrasulfide	EPM	Light yellow granules	Super-speed accelerator for natural and synthetic rubber. It can also act as vulcanizing agent with good processing safety, high cross-linking density, and lower cure reversion. It provides heat resistant vulcanizates with good aging properties.
DPTT-75				
TMTD-75	Tetramethyl thiuram disulfide	EPDM	Gray white granules	Super-speed accelerator for natural and synthetic rubber. It can also act as vulcanizing agent. Mainly used in manufacture of tires, inner tubes, rubber shoes, cables and other products.
TMTD-80				





## PRE-DISPERSED MASTERBATCH

### Accelerator

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
TMTM-75	Tetramethyl thiuram monosulfide	EPDM	Light yellow granules	Super-speed accelerator for natural and synthetic rubber. It can be used alone or in combination with thiazole, aldamine, guanidine and other accelerators. It is an activator of thiazole accelerators.
TMTM-80				
TETD-75	Tetraethyl thiuram disulfide	EPDM	Light yellow granules	Uper-speed accelerator for natural and synthetic rubber. It has better scorch safety than TMTD and has a plasticizing effect in sulfur modified chloroprene rubber. Usually used in manufacture of tires, rubber shoes, cables, bright colored products and other products.
TETD-80				
TBTD-55	Tetrabutyl thiuram disulfide	EPDM	Green slice	TBTD is a super-speed accelerator for natural and synthetic rubber with effect of anti-aging in compound mixing. It usually acts as the secondary accelerator when used in dry rubber. It is a good activator of thiazole accelerator. Mainly used in manufacture of rubber shoes, rubber canvas, inner tubes and other products.
TBzTD-70	Tetrabenzyl thiuram disulfide	EPDM	Light yellow granules	Super-speed accelerator for natural and synthetic rubber without nitrosamine. It shows processing safety, long scorch resistance time, no blooming, no pollution and no discoloration.
TBzTD-75				
TBzTD-80				
DPG-70	N,N'-diphenyl guanidine	EPDM	Gray white granules	Medium-speed accelerator for natural and synthetic rubber. It can be used as synergistic accelerator for sulfenamide, with better vulcanization uniformity for thick rubber products. Mainly used in manufacture of tires, rubber plates, rubber shoes and other products.
DPG-75				
DPG-80				
ETU-75	Ethylene thiourea	EPDM	White granules	Excellent accelerator for neoprene rubber, and it can improve the heat resistance of the rubber without blooming. Mainly used for wire, cable, hose, tape, rubber shoes, rain shoes, raincoats and other products.
ETU-80				
TDEC-70	Tellurium diethyl-dithiocarbamate	EPDM	Orange granules	Super-speed accelerator for natural rubber and synthetic rubber, and is especially suitable for butyl rubber and EPDM rubber, with good dispersion and easy absorption, it is also suitable for continuous vulcanization products and improve the tensile strength and modulus of products. Mainly used for capsules, water tubes, inner tubes, cable insulation, hoses and other products.
TDEC-75				

## PRE-DISPERSED MASTERBATCH

### Accelerator

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
ZBEC-80	Zinc dibenzyl dithiocarbamate	EPDM	White granules	Environmental friendly super-speed accelerator for natural rubber and synthetic rubber without nitrosamine. It is available to replace ZDEC, ZDBC, ZDMC. It can be used as an excellent activator for thiazole and sulfenamide accelerators.
ZDEC-75	Zinc diethyldithio-carbamate	EPDM	White granules	Super-speed accelerator for natural rubber and synthetic rubber, it has a good activation effect to thiazole and sulfenamide accelerators. It has no pollution, no color change, no odor, no taste and no toxicity. It is easy to disperse. Alkaline accelerators have activation effect on it. It can improve the tensile strength and elasticity of vulcanized rubber.
ZDEC-80				
ZDBC-75	Zinc dibutyl dithiocarbamate	EPDM	White granules	ZDBC is a super-speed accelerator for natural rubber and synthetic rubber and good curing activator of thiazole accelerator. It has no change color, no pollution and easy to disperse.
ZDBC-80				
ZDMC-75	Zinc dimeth-yl-dithiocarbamate	EPDM	White granules	Super-speed accelerator of natural rubber and synthetic rubber, it can activate thiazole and sulfenamide accelerators and can be used as second accelerator. It is suitable for rubber products for rubber canvas, food, and medicine due to the advances of odorless, non-polluting, and no color change.
ZDMC-80				
ZMBT-80	2-mercapto-benzothiazole zinc salt	EPDM	Light yellow granules	High-speed vulcanization accelerator of natural rubber and synthetic rubber, and does not have rubber dyeing properties. Mainly used to manufacture tires, rubber hoses, rubber shoes, rubber canvas and other products.

### Adhesive Agent

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
HEXA-80	Hexamethylenetetramine	EPDM	White granules	Slow-acting accelerators, also formaldehyde donors which is applied for enhancing the adhesion of rubber to textiles or metals when used with resorcinol.
R-80	Resorcinol	EPDM	Gray white to light red granules	Used in combination with formaldehyde donors such as HEXA-80, R-80 can generate phenol formaldehyde resin during the vulcanization process, which can enhance the adhesion of rubber to textiles or metals.





## PRE-DISPERSED MASTERBATCH

### Vulcanizing Agent

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
DTDM-80	4,4'-dithiodi-morpholine	EPDM	White granules	Vulcanizing agent and accelerator for natural rubber and synthetic rubber without blooming, pollution, color change. It is easy to disperse. Mainly used in the production of tires, butyl inner tubes, adhesive tapes and heat-resistant rubber products, as well as in asphalt stabilizers for highways.
IS90-65	Insoluble sulfur	EPDM	Yellow granules	Insoluble sulfur is a vulcanizing agent of natural rubber and synthetic rubber, IS does not spray sulfur and does not penetrate into the adjacent rubber layer. It is suitable for application places where storage, bonding and interlayer bonding are required.
IS8010-80				
IS60-75				
S-80	Sulfur	EPDM	Light yellow granules	Avoid the problem of sulfur excess locally caused by general sulfur powder which is of easy to dissolve and difficult to disperse. Especially in soft products, it can easily achieve a uniform distribution.
PDM-75	N, N'-m-phenylenebismaleimide	EPDM	Light yellow granules/slice	Sulfur-free vulcanizing agent for synthetic rubber and rubber-plastic combination rubber. It can replace all sulfur-containing vulcanizing agents such as thiazoles and thiurams when used in rubber cables, solving the problem of copper wire blackening due to contact with sulfur-containing sulfide to generate copper sulfide.
DCP-40	Dicumyl peroxide	EPM	Gray white granules	Excellent organic peroxide, can be used as the initiator of monomer polymerization, vulcanizing agent, crosslinking agent, curing agent, flame retardant additives of polymer materials. Mainly used in rubber, polyolefin, foam plastic, cable, shoe making, insulating paint and other products.
DCP-50				

### Blowing Agent

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
OBSH-75	Oxobisbenzene-sulfonyl hydrazide	EPDM	Gray white granules	Organic blowing agent of natural rubber and synthetic rubber, it has the advantages of non-toxic, non-irritating odor, uniform and fine foaming pores, excellent physical properties, and low blowing temperature. It is mainly used to produce odorless, tasteless, pollution-free and non-bleaching cell-like products with fine and uniform cell structure.
ADC-75	Azodicarbonamide	EPDM	Yellow granules	Organic blowing agent of natural rubber and synthetic rubber has the characteristics of large gas generation, uniform foaming, no pollution to products, and non-toxic gas generated. ADC masterbatch is more stable and safer than powder.
ADC-80				

## PRE-DISPERSED MASTERBATCH

### Blowing Agent

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
E-80	N-Phenyl-N-(Trichloromethyl-sulfonyl)-benzolsulfonamide	EPDM	Grey white granules	Retarder of natural rubber and synthetic rubber, can promote vulcanization, prolong the scorch time, but does not impact the curing speed, does not produce nitrosamines. It is non-toxic, tasteless, pollution-free and does not change color, can be used for light-colored products.
PVI-80	N-cyclohexyl thio phthalimide	EPDM	Grey white granules	PVI is a retarder of natural rubber and synthetic rubber. It can be used with subsulfonamide or thiazole accelerators to control the safety of operation and prevent early curing without affecting the curing properties and properties of vulcanized rubber. It can significantly improve the storage stability of unvulcanized rubber material and reduce the amount of waste rubber.

### Metal Oxide

Product	Chemical composition	Carrier	Appearance	Characteristics and Application
TiO <sub>2</sub> -60	R-type titanium dioxide	EVA	White granules	White coloring agent of rubber with excellent tinting strength and covering. It can achieve the bright white with low dosage. The vulcanized products will not be impacted by acid-base and sulphide and have properties of insulation resistance and no discoloration. It is a kind of inert filling.
TiO <sub>2</sub> -80		EPDM		
MgO-70	Active magnesium oxid	EPDM	Grey white granules	Activator of accelerator, also an acid absorbent and active agent of neoprene gum, which can improve the tensile strength, tensile stress and hardness of the vulcanized neoprene gum, improve the processing safety and prevent scorch.
CaO-80	Calcium oxide	EPDM	Grey white granules	The hygroscopic agent of rubber. It can prevent the formation of bubbles in non-pressure vulcanized rubber products.
Pb <sub>3</sub> O <sub>4</sub> -80	Lead tetraoxide	EPDM	Red granules	The curing activator of chloroprene rubber, butyl rubber and chloro-sulfonated polyethylene rubber. It can be used for rubber coloring.
ZnO-80	Zinc oxide	EPDM	White granules	The curing activator of natural rubber and synthetic rubber.