



# Perkacit<sup>®</sup> ZDEC

**COMPOSITION:** *Zinc diethyldithiocarbamate CAS#14324-55-1*

Perkacit ZDEC is a very fast primary or secondary (ultra) accelerator for natural and synthetic rubber. It is also a very rapid accelerator for NR and SBR lattices. Additionally it is used as an antioxidant in adhesive systems.

## MAJOR APPLICATIONS AND PROPERTIES

- Perkacit ZDEC is a secondary ultra accelerator for general purpose polymers (NR, SBR, IIR and EPDM). It can be used as primary accelerator in some continuous cure applications as well as in latex.
- Furthermore Perkacit ZDEC is used as an antioxidant in adhesive systems.
- For latex applications three special grades are available: a dispersible powder, a wettable powder and a wettable granule.
- It should be noted that in the application of Perkacit ZDEC N-nitrosodiethylamine can be formed by the reaction of diethylamine, a decomposition product, with nitrosating agents (nitrogen oxides).
- Perkacit ZDEC is regulated for use in articles in contact with food as specified under FDA 21 CFR 175.105, 177.2600 and under BfR Recommendation XXI, Categories 1-4 and "Sonderkategorie".

## COMPOUNDING INFORMATION

In NR latex 1.0 phr Perkacit ZDEC together with 2.5 phr sulfur serves as a good starting point when used as a primary accelerator.

A good starting point for foamed applications based on NR or SBR is 1.5 phr Perkacit ZDEC in combination with 1.0 phr ZMBT and 2.5 phr sulfur.

In NR and SBR Perkacit ZDEC is generally used at the 0.1 to 0.4 phr level in combination with thiazoles and sulfenamides.

In EPDM rubber applications Perkacit ZDEC is generally used in blends with other dithiocarbamates in order to minimize bloom; dosages are determined based on specific application.

## HANDLING PRECAUTIONS

For detailed information on toxicological properties and handling precautions please refer to the current Safety Data Sheet. This information sheet can be downloaded from our web site or requested from the nearest Performance Additives office and should be consulted before handling this product.

## STORAGE RECOMMENDATIONS

Store Perkacit ZDEC in a cool, dry, well ventilated area, avoiding exposure of the packaged product to direct sunlight.

PRODUCT INFORMATION

<b>Perkacit ZDEC</b>	<b>pdr</b>	<b>pdr-d</b>	<b>pdr-w</b>	<b>grs-w</b>	
Product form	powder	dust suppressed powder	wettable powder	wettable granules	
<b><u>PRODUCT SPECIFICATIONS</u></b>					<u>Test method</u>
Appearance	white to off white powder	white to off white powder	white to off white powder	off white to gray granules	FF97.5
Zinc content (%)	17.5-19.0	17.2-18.7	17.2-18.7	17.0-18.4	FCp97.3
Melting point, initial (°C) min.	172	170	172	170	FF83.9
Melting point, final (°C)	178-183	176-183	176-183	176-183	FF83.9
Heat loss (%) max.	0.5	0.5	2.5	0.7	FGr97.7
Additive (%)	-	1.0-2.0	-	-	FGr83.6
Residue on 150 µm sieve (%) max.	0.1	0.1	0.1	-	FF83.8
Residue on 63 µm sieve (%) max.	0.5	0.5	0.5	-	FF83.8
<b><u>TYPICAL PROPERTIES</u></b>					
Density at 20 °C (kg/m <sup>3</sup> )	1480	1465	1490	1490	
Bulk density (kg/m <sup>3</sup> )	330-370	375-415	425-465	505-545	
Compacted bulk density (kg/m <sup>3</sup> )	395-435	500-540	440-480	525-565	