



Perkacit[®] ZDBC

COMPOSITION: *Zinc dibutyldithiocarbamate CAS#136-23-2*

Perkacit ZDBC 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 latices. Additionally it is an antioxidant in rubber adhesive systems.

MAJOR APPLICATIONS AND PROPERTIES

- Perkacit ZDBC is used as secondary ultra accelerator for thiazole and sulfenamide cure systems in general purpose polymers (NR, SBR, IIR, EPDM). It can be used as a primary accelerator in specialty applications as well as in latex.
- In latex applications Perkacit ZDBC is mainly used in transparent goods and in pre-vulcanized latex.
- An additional application is as an antioxidant in adhesive systems.
- Perkacit ZDBC gives faster cures than Perkacit ZDEC or Perkacit ZDMC.
- It should be noted that in the application of Perkacit ZDBC N-nitrosodibutylamine can be formed by the reaction of dibutylamine, a decomposition product, with nitrosating agents (nitrogen oxides).
- Perkacit ZDBC is regulated for use in articles in contact with food as specified under FDA 21 CFR 175.105, 178.2010, 175.300, 177.1210, 177.2600 and under BfR Recommendation XXI, Categories 1-4 and "Sonderkategorie".

COMPOUNDING INFORMATION

In NR latex, when used as a primary accelerator 1 phr of Perkacit ZDBC with 2.5 phr sulfur is a good starting point.

In EPDM Perkacit ZDBC has the highest solubility of all dithiocarbamates, offering the lowest blooming effect. An acceptable starting point for a low set non-blooming EPDM compound is Perkacit ZDBC 2.0, TMTD 0.8, DPTT 0.8 and Sulfasan DTDM 2.0 phr.

In rubber cured in contact with polyester textiles Perkacit ZDBC is preferably used over other dithiocarbamates.

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 ZDBC in a cool, dry, well-ventilated area, avoiding exposure of the packaged product to direct sunlight.

PRODUCT INFORMATION

Perkacit ZDBC	pdr	pdr-d	
Product form	powder	dust suppressed powder	
<u>PRODUCT SPECIFICATIONS</u>			<u>Test method</u>
Appearance	white to off white powder	white to off white powder	FF97.5
Zinc content (%)	13.8-14.8	13.5-14.5	FCp97.3
Melting point, initial (°C) min.	100	98	FF83.9
Melting point, final (°C)	105-112	105-112	FF83.9
Heat loss (%) max.	0.5	0.5	FGr97.7
Water solubles (%) max.	0.5	0.5	FF83.12
Additive (%)	-	1.0-2.0	FGr83.6
Residue on 150 µm sieve (%) max.	0.1	0.1	FF83.8
Residue on 63 µm sieve (%) max.	0.5	0.5	FF83.8
<u>TYPICAL PROPERTIES</u>			
Density at 20 °C (kg/m ³)	1270	1270	
Bulk density (kg/m ³)	310-350	330-370	
Compacted bulk density (kg/m ³)	400-440	400-440	