

Perkacit® TDEC

COMPOSITION: *Tellurium diethyldithiocarbamate* CAS#20941-65-5

Perkacit® TDEC is a very fast primary or secondary (ultra) accelerator for natural and synthetic rubbers.

MAJOR APPLICATIONS AND PROPERTIES

- Perkacit® TDEC offers very fast vulcanization.
- Perkacit® TDEC is used as a secondary ultra accelerator for thiazole and sulfenamide cure systems for general-purpose polymers (NR, NBR, SBR and EPDM). In IIR it results in extremely fast curing.
- Perkacit® TDEC is non-staining and non-discoloring. It can be used as a primary accelerator in some continuous cure applications.
- Using Perkacit® TDEC in sulfur vulcanization results in increased tensile strength and modulus.
- It should be noted that in the application of Perkacit® TDEC N-nitrosodiethylamine can be formed by the reaction of diethylamine, a decomposition product, with nitrosating agents (nitrogen oxides).
- Perkacit® TDEC is regulated for use in articles in contact with food as specified under BfR Recommendation XXI, Category 4. Perkacit TDEC is not regulated for use in FDA food contact applications.

COMPOUNDING INFORMATION

As a secondary accelerator Perkacit® TDEC is used at levels ranging from 0.1 to 0.3 phr in EPDM based compounds.

In EPDM, Perkacit® TDEC is used as a secondary accelerator in the "Triple 8" system: DPTT 0.8, Perkacit® TDEC 0.8, TMTM 0.8, MBT 1.5 and sulfur 2.0 phr.

Perkacit® TDEC gives the longest scorch time of all the 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® TDEC in single stacked pallets in a cool, dry, well-ventilated area, avoiding exposure of the packaged product to direct sunlight. Double stacking of palletized material and/or exceeding 35 °C can result in unusual compaction of product.

PRODUCT INFORMATION

Perkacit® TDEC	pdr-d	
Product form	dust suppressed/oiled powder	
<u>PRODUCT SPECIFICATIONS</u>		<u>Test method</u>
Appearance	light orange to yellow powder	FF97.5
Tellurium content (%)	16.5-19.0	FOx83.1
Melting point, initial (°C) min.	108	FF83.9
Melting point, final (°C) max.	112-122	FF83.9
Heat loss (%) max.	0.5	FGr97.7
Additive (%)	1.0-2.0	FGr83.6
Residue on 150 µm sieve (%) max.	0.1	FF83.8
Residue on 63 µm sieve (%) max.	0.5	FF83.8
<u>TYPICAL PROPERTIES</u>		
Density at 20 °C (kg/m ³)	1480	
Bulk density (kg/m ³)	320-360	