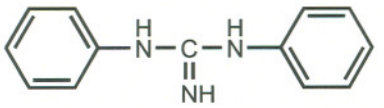
FLEXSYS

Accelerators

Product Data

PERKACIT DPG



N,N'-Diphenylguanidine

CAS Reg. No.: 102-06-7

Molecular weight: 211

FUNCTION

Perkacit DPG is used as a secondary accelerator in combination with thiazoles and sulfenamides in most of the sulfur cured elastomers. In NR and SBR latices it is used as a gelling agent in foam processes.

MAJOR APPLICATIONS AND PROPERTIES

- Perkacit DPG as a secondary accelerator shows a synergistic effect when used with thiazoles and sulfenamides giving faster cure rates and higher levels of mechanical properties in all general purpose elastomers.
- Perkacit DPG is generally not used alone as it tends to be very slow and scorchy.
- Due to discoloration it is generally not suitable for light colored compounds.
- Perkacit DPG can be used in latex as a secondary gelling agent (foam stabilizer) in the silico-fluoride foam process.
- Using Perkacit DPG gives fast cures with good reversion and fatigue resistance and better storage stability than obtained with formulations activated by thiurams and dithiocarbamates.
- Perkacit DPG is regulated for use in articles in contact with food as specified under FDA 21 CFR 177.2600 and under BgVV XXI, Categories 3-4.

COMPOUNDING INFORMATION

In NR typical dosage levels of 0.4 phr Perkacit DPG in combination with 1.0 phr of a thiazole or 0.3 phr Perkacit DPG with 0.5 phr of a sulfenamide are good starting points.
In SBR typical dosage levels of 0.4 phr Perkacit DPG in combination with 1.75 phr of a thiazole or 0.5 phr Perkacit DPG with 0.5 phr of a sulfenamide are good starting points.
In mercaptan modified polychloroprene safe cures are obtained in conjunction with sulfur and Perkacit TMTM. An example is 0.6 phr Perkacit DPG, 0.6 phr Perkacit TMTM and 1.2 phr sulfur.
At high levels, 1- 2 phr, Perkacit DPG can cause discoloration in light colored compounds.

When used in latex 0.5 - 1.0 phr of Perkacit DPG is used with a dithiocarbamate as the primary accelerator.
As secondary gelling agent in latex applications typical amounts of Perkacit DPG are 0.5-1.0 phr.
It is more active in NR than in SBR latex.
In amine type cure systems of EAM (Ethylene/Acrylate Copolymers) Perkacit DPG is commonly used at up to 4 phr in combination with other accelerators.

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 Flexsys office and should be consulted before handling this product.

STORAGE RECOMMENDATIONS

Store Perkacit DPG 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 DPG Product form		**pdr** powder	**pdr-d** dust suppressed powder	**grs-3mm** 3mm granules	
PRODUCT SPECIFICATIONS					Test method
Appearance		cream to light pink powder	cream to light pink powder	off white granules	FF97.5
Assay (titration)	(%) min.	97.0	96.0	96.5	FAc97.3
Melting point, initial	(°C) min.	144	144	144	FF83.9
Melting point, final	(°C)	146-150	146-150	145-149	FF83.9
Heat loss	(%) max.	0.3	0.3	0.3	FGr97.7
Ash	(%) max.	0.4	0.4	0.4	FGr90.9
Additive	(%)	-	1.0-2.0	1.0-2.0	FGr97.8
Residue on 150 µm sieve	(%) max.	0.1	0.1	-	FGr86.4
Residue on 63 µm sieve	(%) max.	0.5	0.5	-	FGr86.4
TYPICAL PROPERTIES					
Density at 20°C	(kg/m^3)	1180	1180	1180	

Perkacit DPG is also available as 75% masterbatch.

MARKETED BY

HARWICK STANDARD DISTRIBUTION CORPORATION

60 S. Seiberling Street • Akron, Ohio 44305

For further information please visit ouf website, www.flexsys.com or contact your local Flexsys office or regional Flexsys headquarters:

Regional Headquarters	:	Brussels	Akron	Kuantan
Tel.	:	+32 2 714 32 11	+1 330 666 41 11	+60 9 585 6100
Fax	:	+32 2 714 32 32	+1 330 668 83 45	+ 60 9 583 4909

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