

ADDITIVES – hexagonal boron-nitride and graphene



PRODUCTNAME	APPLICATIONS	SPECIAL FEATURES
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2D hexagonal boron-nitride

B-LEAF 19900		- few-layers hexagonal-Boron Nitride (h-BN) in powder form - lateral crystal size: approx. 130nm - crystal thickness: <5nm
B-LEAF 10001	- Only few atomic-layer thickness - Very high chemical and thermal stability - High compatibility - Heat-dissipating coatings and films - Electrically insulating coatings and films - Barrier coatings and films - Aging and corrosion protective coatings for different substrates - Anti-abrasion / Anti-wear coatings - Textile finishing - Polymer compounding - Other uses where thermal management and/or substrate protection are required	- two-dimensional <i>h</i>-BN concentrate for aqueous systems - resin-free - based on sterically stabilized few-layer hexagonal boron-nitride - water based dispersion with easier processability and handling compared to Powder - specifically designed to provide functionalities to waterborne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal conductivity, electrical insulation, anti-abrasion and barrier properties
B-LEAF 10101	- Low dosage level (typically from 0.5% to 5%)	- two-dimensional <i>h</i>-BN concentrate for high to medium polarity systems - resin-free - based on sterically stabilized few-layer hexagonal boron-nitride - dispersed in 1-methoxy-2-propanol with easier processability and handling compared to powder - specifically designed to provide functionalities to medium-high polarity solvent-borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal conductivity, electrical insulation, anti-abrasion and barrier properties

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B-LEAF 10201	- Only few atomic-layer thickness - Very high chemical and thermal stability - High compatibility - Heat-dissipating coatings and films - Electrically insulating coatings and films - Barrier coatings and films - Aging and corrosion protective coatings for different substrates - Anti-abrasion / Anti-wear coatings - Textile finishing - Polymer compounding - Other uses where thermal management and/or substrate protection are required - Low dosage level (typically from 0.5% to 5%)	- two-dimensional <i>h</i>-BN concentrate for medium polarity systems - resin-free - based on sterically stabilized few-layer hexagonal boron-nitride - dispersed in n-butyl acetate with easier processability and handling compared to powder - specifically designed to provide functionalities to medium polarity solvent-borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal conductivity, electrical insulation, anti-abrasion and barrier properties
B-LEAF COATING 11001		- anticorrosion paint based on two-dimensional <i>h</i>-BN - acrylic 2K corrosion-inhibiting paint - based on mixed single-/few-layer hexagonal boron nitride flakes acting as physical barrier against corrosive species - especially for long-term corrosion protection in humid or corrosive environments - the paint can be applied on metallic and printed circuit board (PCB) substrates - for spray coating, brush and roll painting and doctor blading - drying at low temperature: 20°C for 48 h or 60°C for 1 h - very good adhesion to steel, stainless steel, sandblasted steel, zinc-based inorganic primer, galvanized steel, aluminum and aluminum alloys, cast iron and plastics

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B-LEAF 10301	- Only few atomic-layer thickness - Very high chemical and thermal stability - High compatibility - Heat-dissipating coatings and films - Electrically insulating coatings and films - Barrier coatings and films	- two-dimensional <i>h</i>-BN concentrate for low polarity systems - resin-free and toluene-free - based on sterically stabilized few-layer hexagonal boron-nitride - dispersed in xylene with easier processability and handling compared to powder - specifically designed for low polarity or nonpolar solvent-borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal conductivity, electrical insulation, anti-abrasion and barrier properties
B-LEAF 10401	- Aging and corrosion protective coatings for different substrates - Anti-abrasion / Anti-wear coatings - Textile finishing - Polymer compounding - Other uses where thermal management and/or substrate protection are required - Low dosage level (typically from 0.5% to 5%)	- two-dimensional <i>h</i>-BN concentrate for low polarity systems - resin-free - based on sterically stabilized few-layer hexagonal boron-nitride - dispersed in toluene with easier processability and handling compared to powder - specifically designed for low polarity or nonpolar solvent-borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal conductivity, electrical insulation, anti-abrasion and barrier properties

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2D hexagonal graphene		
G-LEAF 09900	Graphene is the strongest and thinnest material known, it improves electricity and heat conduction, lubrication, abrasion-resistance, barrier-properties and mechanical resistance. - Only few atomic-layer thickness - Very high chemical and thermal stability - High compatibility - Composite materials - Polymer compounding - Heat-dissipating coatings and films - Electrically conductive coatings and films - Antistatic coatings and films - Encapsulants - Aging protective and anti-corrosion coatings for different substrates - Anti-abrasion and anti-wear coatings - Low dosage level (typically from 0.1% to 5%)	- few-layers hexagonal-Graphene (h-graphene) in powder form - lateral crystal size: approx. 1'000nm - crystal thickness: <4nm
G-LEAF 00001		- two-dimensional <i>h</i>-graphene concentrate for aqueous systems - resin-free - based on sterically stabilized few-layer hexagonal graphene - dispersed in water with easier processability and handling compared to powder - specifically designed for waterborne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal- and electrical conductivity, anti-abrasion resistance
G-LEAF 00101		- two-dimensional <i>h</i>-graphene concentrate for medium-high polarity solvent borne systems - resin-free - based on sterically stabilized few-layer hexagonal graphene - dispersed in 1-methoxy-2-propanol with easier processability and handling compared to powder - specifically designed for medium-high polarity solvent borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal- and antistatic conductivity, anti-abrasion resistance

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G-LEAF 00201	Graphene is the strongest and thinnest material known, it improves electricity and heat conduction, lubrication, abrasion-resistance, barrier-properties and mechanical resistance. - Only few atomic-layer thickness - Very high chemical and thermal stability - High compatibility - Composite materials - Polymer compounding - Heat-dissipating coatings and films - Electrically conductive coatings and films - Antistatic coatings and films - Encapsulants - Aging protective and anti-corrosion coatings for different substrates - Anti-abrasion and anti-wear coatings - Low dosage level (typically from 0.1% to 5%)	- two-dimensional <i>h</i>-graphene concentrate for medium polarity solvent borne systems - resin-free - based on sterically stabilized few-layer hexagonal graphene - dispersed in n-butyl acetate with easier processability and handling compared to powder - specifically designed for medium polarity solvent borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal- and electrical conductivity, anti-abrasion resistance
G-LEAF 00301	- Low dosage level (typically from 0.1% to 5%)	- two-dimensional <i>h</i>-graphene concentrate for non-polar solvent borne systems - resin-free and toluene-free - based on sterically stabilized few-layer hexagonal graphene - dispersed in xylene with easier processability and handling compared to powder - specifically designed for non-polar solvent borne systems - for functional and smart coatings, textile finishing and solution-processed polymer compounding - to increase mechanical strength, thermal- and electrical conductivity, anti-abrasion resistance

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