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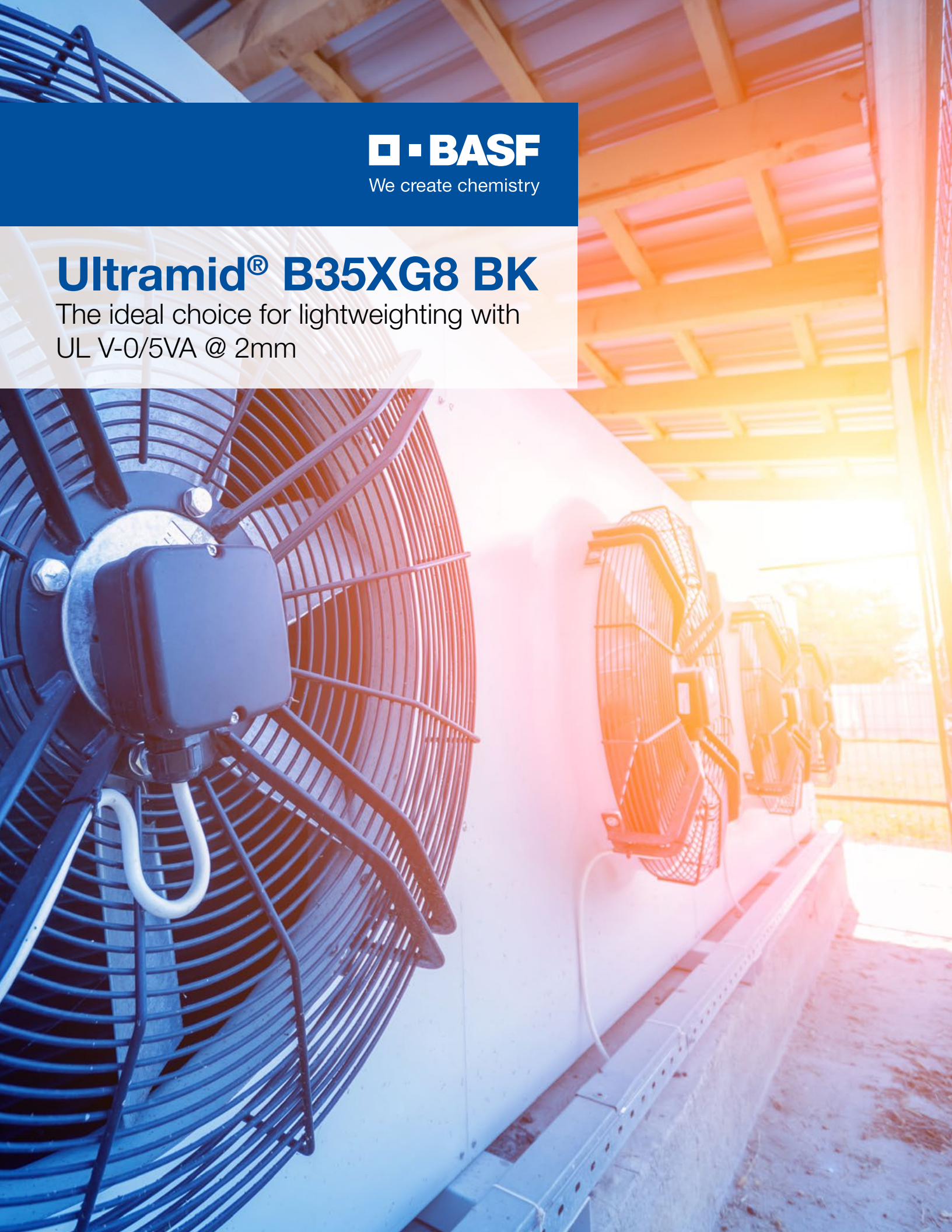
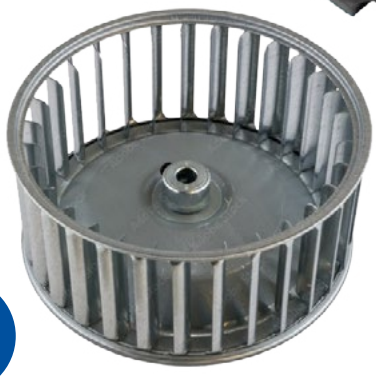
Ultramid® B35XG8 BK

The ideal choice for lightweighting with UL V-0/5VA @ 2mm



Product Overview:

Ultramid® B35XG8 BK: Halogen-free, PA6 FR that is ideal for lightweighting



- Balanced mechanical properties
- 5VA flammability properties
- Low density
- Easy vibration welding

Great choice for metal replacement

- **Initially developed for FR HVAC fans to meet UL V-0/5VA @ 2mm**
- **An excellent material to replace metals in other industrial machinery parts with FR requirements**

Product Features and Benefits:

Ultramid® B35XG8 BK offers a wide range of properties that enable its use in machinery parts

Potential for substantial cost savings
- More cost-effective than PA66
- Less dense than metal

Fantastic heat aging retention
- RTI values of 140 °C show suitability for high temperature applications

Balanced mechanical properties

Excellent flammability properties
- V-0/5VA @ 2mm

Low density
- Lighter components with the same mechanical performance
- Improved efficiency

Ultramid® B35XG8 BK 23359		
	Test	**Values**
UL Flammability vs. Standard	UL-94	V-0/5VA @ 2mm
		Dry
Flexural modulus	ISO 178	13,200 MPa
Tensile modulus	ISO 527	13,900 MPa
Tensile strain at break	ISO 527	2.3%
Charpy notched (23 °C)	ISO 179	11 kJ/m²
Charpy unnotched (23 °C)	ISO 179	60 kJ/m²
Density	**ISO 1183**	**1.59 g/cm³**
40% Mass Savings vs. Die-cast Aluminum!		
Density of die cast aluminum		2.7 g/cm³
Density of stainless steel		7.9 g/cm³

UL Yellow Card Status:
Ultramid® B35XG8 BK Preliminary Yellow Card

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PROSPECTOR®
View additional material information including performance and processing data

The information presented on the UL Prospector datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

Component - Plastics E36632

Guide Information

BASF CORP
1609 BIDDLE AVE, WYANDOTTE MI 48192-3729

B35XG8
Polyamide 6 (PA6) "Ultramid", furnished as pellets

Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
BK	1.5	V-0	1	0	65	65	65
	2.0	V-0, 5VA	1	0	65	65	65
	3.0	V-0, 5VA	1	0	65	65	65

Comparative Tracking Index (CTI): 1
Dielectric Strength (kV/mm): -
High-Voltage Arc Tracking Rate (HVTR): -
Dimensional Change (%): -

Inclined Plane Tracking (IPT) kV: -
Volume Resistivity (10^x ohm-cm): -
Surface Resistivity (10^x ohms/square): -
High Volt, Low Current Arc Resis (D495): -

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 2020-09-18
Last Revised: 2021-06-15

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IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10, IEC 60695-11-20	Class (color)	1.5	V-0 (BK)
			2.0	V-0, 5VA (BK)
			3.0	V-0, 5VA (BK)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	°C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	°C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	°C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	°C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m^2	-	-
ISO Izod Impact	ISO 180	kJ/m^2	-	-
ISO Charpy Impact	ISO 179-1	kJ/m^2	-	-

Summary:
Ultramid® B35XG8 BK

An excellent material to replace metals for HVAC, E&E and other industrial machinery part applications

Potential for substantial cost savings

Less expensive than PA66
Lower density than metals

Excellent flammability and heat retention properties

UL V-0/5VA @ 2mm
RTI values of 140°C

Balanced mechanical properties

Good tensile strength, flexural strength, impact and fatigue

Sustainability

Low density allows for lighter components and improved efficiency

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Scan the QR code to learn more

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