

PRODUCT DATASHEET

## WeeTect Bionic Face Shield (WBFS)

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WeeTect bionic face shield (WBFS) is a custom injection molding face shield with bionic design which can realize the design from customer. It has an outstanding 180 degree field of vision with no distortion and is compliant with EN166 and ANSI Z87.1 2003 which can apply to grinding face shield, chemical face shield and other mechanical work protection.

WeeTect bionic face shield (WBFS) has excellent optics combined with increased visibility. It boasts the following qualities: fog-free, scratch resistant, optical clarity (class 1), high impact resistant (resists a 6 mm, 0.86 g ball at 120 m/s). Having a sustainable performance increases the longevity of the product and reduces significant product manufacturing cost, WeeTect bionic face shield (WBFS) is popularly used in head protection. It provides great

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protection against flying debris from cutting, grinding, woodworking, lawn care and hazards from mechanical work, do it yourself projects, hobbies, liquid chemical splash; any task where you need to protect your eyes and face.



### Advantages:

- Bionic design with comfortable fit
- Fog and abrasion resistant coated
- Optical clarity with low distortion
- Superior impact resistant
- Much more cost competitive
- More custom flexible

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Item	Property	Test Method	U/M	Value
<b>Optical</b>	Diopter	ECE 22.05	D	<0.125
	Haze	ASTM D 1003	%	0.37
	Fog Free time	ECE22.05/ECE324	s	>22
	Fog Free time	Freezing Test	s	no fogging
<b>Mechanical</b>	Hardness 1KG	ANSI Z87.1 2010	H	1
	High velocity impact	ANSI Z87.1 2010	ft/s	>300
	Cross-Cut tape test	ANSI Z87.1 2010	NA	Pass
	Elongation, yield % 7	ANSI Z87.1 2010	%	7
	Elongation, break ISO 527 % 110	ANSI Z87.1 2010	%	110
	Tensile stress, yield	ANSI Z87.1 2010	Mpa	60
	Tensile modulus MPa	ANSI Z87.1 2010	Mpa	2300
	Flexural strength, yield	ANSI Z87.1 2010	Mpa	100
	Flexural modulus ISO 178 MPa 2500	ANSI Z87.1 2010	Mpa	2500
	Izod notched impact, 20 ° C	ANSI Z87.1 2010	KJ/m <sup>2</sup>	65
<b>Physical</b>	Gravity	ANSI Z87.1 2010	g/cm <sup>3</sup>	1.2
	Water absorption, 24 hours	ANSI Z87.1 2010	%	0.15
<b>Thermal</b>	Mold shrinkage	ANSI Z87.1 2010	%	0.5-0.7
	Thermal expansion	ANSI Z87.1 2010	1/ °C	7x10 <sup>-5</sup>
	Vicat Softening Temp., Rate B / 120(base sheet)	ANSI Z87.1 2010	°C	150
	HDT, 0.45 MPa	ANSI Z87.1 2010	°C	138