



## PROTURF GREEN 3608 HDPE MATERIAL DATA SHEET

**PROTURF GREEN 3608 HDPE MEETS OR EXCEEDS:**  
 ASTM D 2239  
 ASTM D 3350, CELL CLASSIFICATION PE 345464C

**PROTURF GREEN 3608 PIPE FOR:**  
 POTABLE WATER AND IRRIGATION  
 APPLICATIONS.

### NOMINAL PIPE PROPERTIES

	ASTM METHOD	ENGLISH UNITS	SI UNITS
DENSITY (BLACK)	D 4883	-	.955 g/cc
MELT INDEX <sup>1</sup>	D 1238	-	12.5g/10 min
HYDROSTATIC DESIGN BASIS @ (23° C)	D 2837	1600 psi	11.0 MPa
HYDROSTATIC DESIGN BASIS @ (60° C)	D 2837	800 psi	5.5 MPa
CARBON BLACK CONCENTRATION	D 1603	2.30%	2.30%

### NOMINAL RAW MATERIAL PROPERTIES

<b>TENSILE STRENGTH</b>			
@ YIELD (2 in/min)	D 638	3300 psi	22.8 MPa
@ BREAK (2 in/min)	D 638	4500 psi	31.0 MPa
<b>ELONGATION</b>			
@ BREAK (2 in/min)	D 638	>600%	>600%
FLEXURAL MODULUS <sup>2</sup>	D 790	120,000 psi	827 MPa
NOTCHED IZOD IMPACT STRENGTH	D 256	6.0 ft-lbf/in	0.32 kJ/m
HARDNESS (SHORE D)	D 2240	68	68
VICAT SOFTENING POINT	D 1525	259° F	126° C
BRITTLENESS TEMPERATURE	D 746	<-180° F	<-118° C
ENVIRONMENTAL STRESS CRACK RESISTANCE <sup>3</sup>	D 1693	>5000 hrs.	>5000 hrs.
NOTCH TENSILE (PENT)	F 1473	>100 hrs.	>100 hrs.
CELL CLASSIFICATION	D 3350	345464C	345464C

<sup>1</sup> 190°C/21600 g

<sup>2</sup> 2% Secant-Method 1

<sup>3</sup> Condition C

Available in Iron Pipe Size 3/4" - 1 1/4".

Centennial Plastics is an ISO 9001 certified company.

ProTurf HDPE 3608 is certified by NSF.

ProTurf HDPE 3608 is certified by NSF Standards 14 and 61.



## PROTURF GREEN 2708 MDPE MATERIAL DATA SHEET

**PROTURF GREEN 2708 MDPE MEETS OR EXCEEDS:**  
ASTM D 2239  
ASTM D 3350, CELL CLASSIFICATION PE 234363C

**PROTURF GREEN 2708 PIPE FOR:**  
POTABLE WATER AND IRRIGATION  
APPLICATIONS.

### NOMINAL PIPE PROPERTIES

	ASTM METHOD	ENGLISH UNITS	SI UNITS
DENSITY (BLACK)	D 4883	-	.949 g/cc
MELT INDEX <sup>1</sup>	D 1238	-	0.20 g/10 min
HYDROSTATIC DESIGN BASIS @ (23° C)	D 2837	1250 psi	8.6 MPa
HYDROSTATIC DESIGN BASIS @ (60° C)	D 2837	800 psi	5.5 MPa
CARBON BLACK CONCENTRATION	D 1603	2.30%	2.30%

### NOMINAL RAW MATERIAL PROPERTIES

<b>TENSILE STRENGTH</b>			
@ YIELD (2 in/min)	D 638	2800 psi	19.3 MPa
@ BREAK (2 in/min)	D 638	4500 psi	31.0 MPa
<b>ELONGATION</b>			
@ BREAK (2 in/min)	D 638	>800%	>800%
FLEXURAL MODULUS <sup>2</sup>	D 790	100,000 psi	690 MPa
NOTCHED IZOD IMPACT STRENGTH	D 256	10.0 ft-lbf/in	0.53 kJ/m
HARDNESS (SHORE D)	D 2240	64	64
VICAT SOFTENING POINT	D 1525	248° F	120° C
BRITTLENESS TEMPERATURE	D 746	<-180° F	<-118° C
ENVIRONMENTAL STRESS CRACK RESISTANCE <sup>3</sup>	D 1693	>5000 hrs.	>5000 hrs.
ENVIRONMENTAL STRESS CRACK RESISTANCE <sup>4</sup>	D 1693	>5000 hrs.	>5000 hrs.
NOTCH TENSILE (PENT)	F 1473	>100 hrs.	>100 hrs.
CELL CLASSIFICATION	D 3350	234363C	234363C

<sup>1</sup> 190°C/21600 g

<sup>2</sup> 2% Secant-Method 1

<sup>3</sup> Condition B, 10%

<sup>4</sup> Condition C

Available in Iron Pipe Size 1" - 1 1/4".

Centennial Plastics is an ISO 9001 certified company.  
ProTurf Green MDPE 2708 is certified by NSF Standards 14 and 61.



## PROTURF BLUE 3608 HDPE MATERIAL DATA SHEET

**PROTURF BLUE 3608 HDPE MEETS OR EXCEEDS:**  
ASTM D 2737  
ASTM D 3350, CELL CLASSIFICATION PE 345464C

**PROTURF BLUE 3608 PIPE FOR:**  
POTABLE WATER AND IRRIGATION  
APPLICATIONS.

### NOMINAL PIPE PROPERTIES

	ASTM METHOD	ENGLISH UNITS	SI UNITS
DENSITY (BLACK)	D 4883	-	.955 g/cc
MELT INDEX <sup>1</sup>	D 1238	-	12.5g/10 min
HYDROSTATIC DESIGN BASIS @ (23° C)	D 2837	1600 psi	11.0 MPa
HYDROSTATIC DESIGN BASIS @ (60° C)	D 2837	800 psi	5.5 MPa
CARBON BLACK CONCENTRATION	D 1603	2.30%	2.30%

### NOMINAL RAW MATERIAL PROPERTIES

<b>TENSILE STRENGTH</b>			
@ YIELD (2 in/min)	D 638	3300 psi	22.8 MPa
@ BREAK (2 in/min)	D 638	4500 psi	31.0 MPa
<b>ELONGATION</b>			
@ BREAK (2 in/min)	D 638	>600%	>600%
FLEXURAL MODULUS <sup>2</sup>	D 790	120,000 psi	827 MPa
NOTCHED IZOD IMPACT STRENGTH	D 256	6.0 ft-lbf/in	0.32 kJ/m
HARDNESS (SHORE D)	D 2240	68	68
VICAT SOFTENING POINT	D 1525	259° F	126° C
BRITTLENESS TEMPERATURE	D 746	<-180° F	<-118° C
ENVIRONMENTAL STRESS CRACK RESISTANCE <sup>3</sup>	D 1693	>5000 hrs.	>5000 hrs.
NOTCH TENSILE (PENT)	F 1473	>100 hrs.	>100 hrs.
CELL CLASSIFICATION	D 3350	345464C	345464C

<sup>1</sup> 190°C/21600 g

<sup>2</sup> 2% Secant-Method 1

<sup>3</sup> Condition C

Available in Iron Pipe Size 3/4" - 1 1/4".

Centennial Plastics is an ISO 9001 certified company.  
ProTurf Blue HDPE 3608 is certified by NSF.  
ProTurf Blue HDPE 3608 is certified by NSF Standards 14 and 61.