



CENFUSE 4710 HDPE MATERIAL DATA SHEET

CENFUSE 4710 HDPE MEETS OR EXCEEDS:
 ASTM D 3035
 ASTM D 3350, CELL CLASSIFICATION PE 445576C

CENFUSE 4710 PIPE FOR:
 GEOTHERMAL, GROUND SOURCE HEAT
 PUMP APPLICATIONS.

NOMINAL PIPE PROPERTIES

| | ASTM METHOD | ENGLISH UNITS | SI UNITS |
|------------------------------------|-------------|---------------|--------------|
| DENSITY (BLACK) | D 4883 | - | .959 g/cc |
| MELT INDEX ¹ | D 1238 | - | 8.5 g/10 min |
| HYDROSTATIC DESIGN BASIS @ (23° C) | D 2837 | 1600 psi | 11.0 MPa |
| HYDROSTATIC DESIGN BASIS @ (60° C) | D 2837 | 1000 psi | 6.9 MPa |
| CARBON BLACK CONCENTRATION | D 1603 | 2.30% | 2.30% |

NOMINAL RAW MATERIAL PROPERTIES

| | | | |
|--|--------|---------------|--------------|
| TENSILE STRENGTH | | | |
| @ YIELD (2 in/min) | D 638 | 3625 psi | 25.0 MPa |
| @ BREAK (2 in/min) | D 638 | 5500 psi | 38.0 MPa |
| ELONGATION | | | |
| @ BREAK (2 in/min) | D 638 | >600% | >600% |
| FLEXURAL MODULUS ² | D 790 | 150,000 psi | 1,035 MPa |
| NOTCHED IZOD IMPACT STRENGTH | D 256 | 9.0 ft-lbf/in | 0.49 kJ/m |
| HARDNESS (SHORE D) | D 2240 | 66 | 66 |
| VICAT SOFTENING POINT | D 1525 | 259° F | 126° C |
| BRITTLENESS TEMPERATURE | D 746 | <-180° F | <-118° C |
| ENVIRONMENTAL STRESS CRACK RESISTANCE ³ | D 1693 | >5000 hrs. | >5000 hrs. |
| NOTCH TENSILE (PENT) | F 1473 | >10,000 hrs. | >10,000 hrs. |
| CELL CLASSIFICATION | D 3350 | 445576C | 445576C |

¹ 190°C/21600 g

² 2% Secant-Method 1

³ Condition C

Available in Size 3/4" - 8"
 SDR 9 - 17.

Centennial Plastics is an ISO 9001 certified company.
 CenFuse is certified by NSF.
 CenFuse meets AWWA C901 and C906 Requirements.
 CenFuse HDPE 4710 is certified by NSF Standards 14 and 61.



BULLET U-BEND 4710 HDPE MATERIAL DATA SHEET

BULLET U-BEND 4710 HDPE MEETS OR EXCEEDS:
ASTM D 3350, CELL CLASSIFICATION PE 445576C

BULLET U-BEND 4710 FOR:
USE IN MANUFACTURE OF BULLET U-BEND FITTING.

NOMINAL PIPE PROPERTIES

| | ASTM METHOD | ENGLISH UNITS | SI UNITS |
|------------------------------------|-------------|---------------|--------------|
| DENSITY (BLACK) | D 4883 | - | .959 g/cc |
| MELT INDEX ¹ | D 1238 | - | 8.5 g/10 min |
| HYDROSTATIC DESIGN BASIS @ (23° C) | D 2837 | 1600 psi | 11.0 MPa |
| HYDROSTATIC DESIGN BASIS @ (60° C) | D 2837 | 1000 psi | 6.9 MPa |
| CARBON BLACK CONCENTRATION | D 1603 | 2.30% | 2.30% |

NOMINAL RAW MATERIAL PROPERTIES

| | | | |
|--|--------|---------------|--------------|
| TENSILE STRENGTH | | | |
| @ YIELD (2 in/min) | D 638 | 3625 psi | 25.0 MPa |
| @ BREAK (2 in/min) | D 638 | 5500 psi | 38.0 MPa |
| ELONGATION | | | |
| @ BREAK (2 in/min) | D 638 | >600% | >600% |
| FLEXURAL MODULUS ² | D 790 | 150,000 psi | 1,035 MPa |
| NOTCHED IZOD IMPACT STRENGTH | D 256 | 9.0 ft-lbf/in | 0.49 kJ/m |
| HARDNESS (SHORE D) | D 2240 | 66 | 66 |
| VICAT SOFTENING POINT | D 1525 | 259° F | 126° C |
| BRITTLENESS TEMPERATURE | D 746 | <-180° F | <-118° C |
| ENVIRONMENTAL STRESS CRACK RESISTANCE ³ | D 1693 | >5000 hrs. | >5000 hrs. |
| NOTCH TENSILE (PENT) | F 1473 | >10,000 hrs. | >10,000 hrs. |
| CELL CLASSIFICATION | D 3350 | 445576C | 445576C |

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