



Sweillem Vitrified Clay Pipes CO.

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EN 295-1:2013

Vitrified Clay Pipes for drains and sewers buried in ground  
DN 200 – 2.0 – FN 48 - C

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength ( $F_N$ )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | Pass        |
| - Squareness of ends   | Pass        |
| - Straightness   | Pass        |
| - Continuity of invert   | Pass        |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | 28 MPa      |
| - Water absorption   | < 6.0 % Wt. |

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Vitrified Clay connector for drains and sewers buried in ground

DN 200 – 0.75 GZ FN 48 – C

DN 200 – 0.75 GA FN 48 - C

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength ( $F_N$ )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | Pass        |
| - Squareness of ends   | Pass        |
| - Angle of curvature   | Pass        |
| - Continuity of invert   | Pass        |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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EN 295-1:2013

Vitrified Clay connector for drains and sewers buried in ground  
 DN 200 – 0.25 GE FN 48 - C

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength ( $F_N$ )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | Pass        |
| - Squareness of ends   | Pass        |
| - Straightness   | Pass        |
| - Continuity of invert   | Pass        |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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Vitrified Clay connector for drains and sewers buried in ground  
DN 200 – GM FN 48 - C

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength ( $F_N$ )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | NPD         |
| - Length   | NPD         |
| - Squareness of ends   | NPD         |
| - Straightness   | NPD         |
| - Continuity of invert   | NPD         |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | NPD         |
| - Airtightness   | NPD         |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | NPD         |
| - Thermal cycling stability  | NPD         |
| - Long term thermal stability  | NPD         |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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**EN 295-1:2013**

Vitrified Clay bends for drains and sewers buried in ground

DN 200 –FN 48 – C– 15°

DN 200 –FN 48 – C– 30°

DN 200 –FN 48 – C– 45°

DN 200 –FN 48 – C– 90°

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength (F <sub>N</sub> )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | NPD         |
| - Squareness of ends   | NPD         |
| - Straightness   | NPD         |
| - Continuity of invert   | NPD         |
| - Angle of curvature   | Pass        |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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**EN 295-1:2013**

Vitrified Clay Junctions for drains and sewers buried in ground

DN 200-150 – 0.5 FN 48-34 – C/F 45°

DN 200-150 – 0.5 FN 48-34 – C/F 90°

DN 200-200 – 0.6 FN 48-40 – C/F 45°

DN 200-200 – 0.6 FN 48-40 – C/F 90°

DN 200-200 – 0.6 FN 48-40 – C/C 45°

DN 200-200 – 0.6 FN 48-40 – C/C 90°

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength ( $F_N$ )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | Pass        |
| - Squareness of ends   | Pass        |
| - Straightness   | Pass        |
| - Continuity of invert   | Pass        |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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**EN 295-1:2013**

Vitrified Clay Repair Junctions for drains and sewers buried in ground

DN 200-150 – 0.6 FN 48-34 – R/F 45°

DN 200-150 – 0.6 FN 48-34 – R/F 90°

DN 200-200 – 0.6 FN 48-40 – R/F 45°

DN 200-200 – 0.6 FN 48-40 – R/F 90°

DN 200-200 – 0.6 FN 48-40 – R/C 45°

DN 200-200 – 0.6 FN 48-40 – R/C 90°

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength ( $F_N$ )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | Pass        |
| - Squareness of ends   | Pass        |
| - Straightness   | Pass        |
| - Continuity of invert   | Pass        |
| - Joint inter-changeability  | R           |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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EN 295-1:2013

Vitrified Clay stopper for drains and sewers buried in ground  
DN 200 – FN 48 - C

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| Crushing strength (F <sub>N</sub> )  | 48 KN/m     |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | Pass        |
| - Squareness of ends   | Pass        |
| - Straightness   | Pass        |
| - Continuity of invert   | Pass        |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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EN 295-1:2013

Vitrified Clay Transition connector for drains and sewers buried  
in ground

DN 200-200- FN 48-40 C/C

DN 200-200- FN 48-40 C/F

|  |             |
|--|-------------|
| Reaction to fire   | Class A1    |
| <b>Longitudinal bending strength:</b>  |             |
| - Bending moment resistance (BMR)  | NPD         |
| <b>Dimensional tolerances, concerning:</b>   |             |
| - Internal diameter  | Pass        |
| - Length   | NPD         |
| - Squareness of ends   | Pass        |
| - Straightness   | NPD         |
| - Continuity of invert   | NPD         |
| - Joint inter-changeability  | System C    |
| <b>Watertightness (gas and liquid) and permeability as:</b>                        |             |
| - Watertightness   | Pass        |
| - Airtightness   | Pass        |
| <b>Durability of watertightness against:</b>                                       |             |
| - Chemical and physical resistance to effluent                                     | Pass        |
| - Thermal cycling stability  | Pass        |
| - Long term thermal stability  | Pass        |
| <b>Durability of crushing strength and longitudinal bending strength, against:</b> |             |
| - Chemical resistance  | < 0.15      |
| - Resistance against high pressure water jetting                                   | NPD         |
| - Water absorption   | < 6.0 % Wt. |

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