

ICC-ES SAVE: Verification of Attributes Report™**VAR-1021**

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DIVISION: 22 00 00—PLUMBING
Section: 22 13 16—Sanitary Waste and Vent Piping**REPORT HOLDER:****CHARLOTTE PIPE AND FOUNDRY COMPANY**
POST OFFICE BOX 35430
CHARLOTTE, NORTH CAROLINA 28208
(704) 332-2647
www.charlottepipe.com**EVALUATION SUBJECT:****CAST IRON SOIL PIPE AND FITTINGS****1.0 EVALUATION SCOPE****Compliance with the following evaluation guideline:**

- ICC-ES Evaluation Guideline for Determination of Recycled Content of Materials (EG101), dated October 2008 (editorially revised July 2009).

Compliance eligibility with the applicable sections of the following green building rating systems, standards and codes:

- 2010 California Green Building Standards Code (CALGreen), Title 24, Part 11 (see Table 2 for details)
- National Green Building Standard (ICC 700-2008) (see Table 3 for details)
- LEED for Homes 2008 (see Table 4 for details)
- LEED 2009 for New Construction and Major Renovations (see Table 5 for details)
- LEED 2009 for Schools New Construction and Major Renovations (see Table 6 for details)
- ANSI/GBI 01-2010—Green Building Assessment Protocol for Commercial Buildings (see Table 7 for details)

2.0 USES

The products are used for drain waste and vent soil pipe and fittings in the plumbing industry.

3.0 DESCRIPTION

The products are grey cast iron pipe and fittings produced in a variety of sizes and shapes.

4.0 CONDITIONS**4.1 Code Compliance:**

See ICC-ES listings [PMG-1082](#) and [PMG-1083](#) for compliance with code requirements.

4.2 Green Rating Systems, Standards and Code Eligibility:

The information presented in Tables 2 through 7 of this report provides a matrix of areas of evaluation and corresponding limitations and/or additional project-specific requirements, and offers benefits to individuals who are assessing eligibility for credits or points.

The final interpretation of the specific requirements of the respective green building rating system and/or standard rests with the developer of that specific rating system or standard or the authority having jurisdiction (AHJ), as applicable.

Compliance for items noted as “Verified Attribute” is subject to any conditions noted in the tables. Decisions on compliance for those items noted as “Eligible for Points” in Tables 2 through 7 rest with the user of this report, and those items are subject to the conditions noted. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. Rating systems or standards often provide supplemental information as guidance.

5.0 BASIS OF EVALUATION

The information in this report, including the “Verified Attribute,” is based upon the following supporting documentation:

ICC-ES EG101 (Evaluation applies to CALGreen Sections A4.505.3 and A5.405.4; ICC 700 Section 604.1; LEED Homes MR Credit 2.2; LEED NC MR Credit 4; LEED Schools MR Credit 4; ANSI/GBI 01 Section 10.1.2.1)

6.0 IDENTIFICATION

Charlotte Pipe and Foundry Company products are identified with the country of origin and the manufacturer's initials or registered trademark. The report subjects are also identified on the product and/or packaging with the VAR number (VAR-1021).

TABLE 1—RECYCLED CONTENT BY WEIGHT SUMMARY

PRODUCT DESCRIPTION	RECYCLED MATERIALS	% PRE-CONSUMER RECYCLED CONTENT	% POST-CONSUMER RECYCLED CONTENT	% IN-PROCESS RECYCLED CONTENT—TREATED	% TOTAL RECYCLED CONTENT
Cast iron pipe and fittings	Iron	0	84.80	0	95.81
	Steel	0.22	10.79	0	

TABLES 2 THROUGH 7

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify for Points	Pipe and Fittings
TABLE 2—SUMMARY OF AREAS OF ELEGIBILITY WITH 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)				
A4.405.3 A5.405.4	Recycled content	Elective	<p>To achieve Tier 1 - Use materials, equivalent in performance to virgin materials, with a postconsumer or preconsumer recycled content value (RCV) for a minimum of 10% of the total value, based on estimated cost of materials on the project.</p> <p>To achieve Tier 2 - Use materials, equivalent in performance to virgin materials, with a postconsumer or preconsumer recycled content value (RCV) for a minimum of 15% of the total value, based on estimated cost of materials on the project.</p> <p>RCV shall be determined as follows: $RCV = (\% PC \times \text{material cost}) + 0.5 (\% PI \times \text{material cost})$</p> <p>Notes: 1. PC means post consumer waste. 2. PI means post industrial waste.</p>	●
TABLE 3—SUMMARY OF AREAS OF ELEGIBILITY WITH THE NATIONAL GREEN BUILDING STANDARD (ICC 700-2008)				
604.1	Use two or more major and/or minor building materials containing recycled content	2 6 max	2, 4 or 6 points may be earned when products are used with another major building component with recycled content of 25% < 50%; 50% < 75%; ≥ 75%, respectively.	●
TABLE 4—SUMMARY OF AREAS OF ELEGIBILITY WITH USGBC'S LEED FOR HOMES				
MR 2.2	Recycled content	0.5	To earn 0.5 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 the post industrial (preconsumer) content constitutes a minimum total recycled content of 25%.	●
TABLE 5—SUMMARY OF AREAS OF ELEGIBILITY WITH USGBC'S LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATION				
MR4	Recycled content	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on the cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	●
TABLE 6—SUMMARY OF AREAS OF ELEGIBILITY WITH USGBC'S LEED 2009 FOR SCHOOLS NEW CONSTRUCTION AND MAJOR RENOVATION				
MR4	Recycled content	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on the cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	●
TABLE 7—SUMMARY OF AREAS OF ELEGIBILITY WITH ANSI/GBI 01-2010 - GREENBUILDING ASSESSMENT PROTOCOL FOR COMMERCIAL BUILDINGS				
10.1.2.1	Materials content - Assemblies	1 8 max	<p>Recycled post-consumer or post-industrial (pre-consumer) content materials accounted for 1% to 20% or more of building materials.</p> <p>Percentage is calculated as $100 \times A \div B$ (total cost or weight of recycled content materials) ÷ B (total cost or weight of all building materials)</p>	●
●	= Verified attribute			