



SGS U.S. Testing Company Inc.

1341 North 108th East Avenue
Tulsa, OK 74116
Tel: 918-437-8333
Fax: 918-437-8487

Report No.: 143328
Date: 7/19/00
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REPORT OF TEST

CLIENT: Energy Technology Labs
2351 Tenaya Drive
Modesto, CA 95354

Attn: Ray Engel

SUBJECT: Evaluation of a showerhead fitting for compliance with ANSI/ASME A112.18.1M-2000.

SAMPLE ID: Three showerheads were received from the client on 5/18/00. The showerheads were identified as model 630XLF 1.5, model 630XLF 2.0, and model 630XLF 2.5. The samples were received in good condition. This report also applies to the models listed in Table 1.

PROCEDURE: The fittings were evaluated in accordance with American National Standard ASME A112.18.1M - 2000 except that toxicity tests were not performed. No revisions to this report will be allowed after 90 days of the report date.

TEST DATE: 6/14/00 & 7/18/00

RESULTS: The test data and results are given on the following pages.

CONCLUSION: The samples do comply with the requirements of ANSI/ASME A112.18.1M-2000.

CERTIFICATION: The tests reported here were conducted under the continuous, direct supervision of SGS U. S. Testing Company Inc., Tulsa, OK.

Signed for the Company

bk Dept. Manager/Product Evaluation

Dale E. Holloway
Tulsa Branch Director

Member of the SGS Group

Table 1.

| | | | |
|------------|------------|------------|------------|
| 600XLW 2.0 | 600XLW 2.5 | 600XLF 2.0 | 600XLF 2.5 |
| 630XLW 1.5 | 630XLW 2.0 | 630XLW 2.5 | 500XLW 2.0 |
| 500XLW 2.5 | 500XLF 2.0 | 500XLF 2.5 | 520XLW 1.5 |
| 520XLW 2.0 | 520XLW 2.5 | 520XLF 1.5 | 520XLF 2.0 |
| 520XLF 2.5 | 110XLW 1.5 | 110XLW 2.0 | 110XLW 2.5 |
| 110XLF 1.5 | 110XLF 2.0 | 110XLF 2.5 | 130XLW 1.5 |
| 130XLW 2.0 | 130XLW 2.5 | 130XLF 1.5 | 130XLF 2.0 |
| 130XLF 2.5 | | | |

TEST RESULTS:
4.2.1 Electrodeposited Coatings: **Pass**

The nickel and chromium plating on the fittings comply with the visual defects, adhesion and corrosion resistance requirements of ASTM B 456 or ASTM B 604, as applicable, for Service condition 2.

| Part | Base Material | Visual Defects | Corrosion Resistance | Adherence |
|------------------------------|---------------|----------------|----------------------|--------------------|
| Showerhead, Chrome Required: | Brass | None None | None None | Adhered Adhered |

4.5 Installation: **Pass**

The fittings do have suitable means to connect to supply piping, and the fittings can be securely connected and mounted without damaging either the fittings or mounting surfaces.

4.6 Pipe Threads: **Pass**

All pipe threads conform to ANSI B1.20.1.

Thread Size: ½ in. NPT

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4.10 Replacement Parts: **Pass**

Replacement of wearing parts can be accomplished without disconnecting the fittings from supply pipes and without damaging or marring significant surfaces.

5.2.3 Thread Torque Strength: **Pass**

The threaded connections withstood a thread torque of:

| | |
|--------------------------|-------------|
| Size, in.: | 1/2 |
| Applied Torque, ft.-lb.: | 45 |
| Required, ft.-lb.: | 45, minimum |

5.5 Flow Capacity: (California Energy Commission Regulation) **Pass**

| | Flow, gpm | | | |
|------------|---------------|---------------|---------------|-----------------|
| | <u>20 psi</u> | <u>60 psi</u> | <u>80 psi</u> | <u>Required</u> |
| 630XLF 1.5 | 0.84 | | 1.66 | 2.5, maximum |
| 630XLF 2.0 | 1.02 | | 2.00 | 2.5, maximum |
| 630XLF 2.5 | 1.49 | | 2.49 | 2.5, maximum |

The flow capacity of the fitting tested does meet the California Energy Commission Regulation requirements

6.4 Bath and Shower Fittings: **Pass**

6.4.1 Servicing: **Pass**

Wearing parts can be replaced from in front of the finished wall as required. Escutcheon does cover the opening in the wall.

6.4.2 Showerheads **Pass**

(California Energy Commission Regulations)

| | 630XLF 1.5 | 630XLF 2.0 | 630XLF 2.5 |
|--------------------------------|------------|------------|------------|
| Maximum Flow, gpm | 1.66 | 2.00 | 2.49 |
| Restrictor Removal Force, lbf: | N/A | N/A | N/A |

Flow capacity does meet the California Energy Commission Regulation requirements.

Client: Energy Technology Labs

7.1 Part Marking: **Pass**

Manufacturer's Identification:
Flow Rate:
"A112.18.1"

Showerhead
Energy Technology Lab
Yes
Yes

7.2 Package Marking: **Pass**

Manufacturer:
Model Number:
"A112.18.1"
Flow Rate

Showerhead
Energy Technology Lab
Yes
Yes
Yes

End of Report

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