

The American Boat & Yacht Council, Inc.

ABYC

Setting Standards for Safer Boating

ABYC Website: www.abycinc.org

3069 Solomons Island Road
Edgewater, MD 21037
(410) 956-1050 ph. (410) 956-2737 fax

E-mail: info@abycinc.org

ABYC technical board rules provide that all reports, including standards and technical information reports, are advisory only. Their use is entirely voluntary. They are believed to represent, as of the date of publication, the consensus of knowledgeable persons, currently active in the field of small craft, on performance objectives that contribute to small boat safety.

The American Boat & Yacht Council assumes no responsibility whatsoever for the use of, or failure to use, standards or technical information reports promulgated by it, their adaptation to any processes of a user, or any consequences flowing therefrom.

Prospective users of the standards and technical information reports are responsible for protecting themselves against liability for infringement of patents.

The American Boat & Yacht Council standards and technical information reports are guides to achieving a specific level of design or performance, and are not intended to preclude attainment of desired results by other means.

ABYC reviews each standard or technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. ABYC invites your written comments and suggestions via our website.

Copyright ©1968, ©1971, ©1972, ©1974, ©1975, ©1976, ©1977, ©1978, ©1979, ©1980, ©1981, ©1982, ©1983, ©1984, ©1985, ©1986, ©1987, ©1988, ©1989, ©1990, ©1991, ©1992, ©1993, ©1994, ©1995, ©1996, ©1997, ©1998, ©1999, ©2000, ©2001, ©2002, ©2003, ©2004.

American Boat & Yacht Council, Inc.
All Rights Reserved

No part of this publication may be copied or reproduced in any form, including an electronic retrieval system or be made available on the Internet, a public network, by satellite or otherwise without the prior written permission of American Boat & Yacht Council, Inc., 3069 Solomons Island Road, Edgewater, MD 21037-1416.

T-19 FABRICATION EQUIPMENT, PROCEDURES, AND MATERIALS QUALITY CONTROL

Table of Contents

T-19.1	PURPOSE	1
T-19.2	SCOPE	1
T-19.3	INTRODUCTION	1
T-19.4	REQUIREMENTS - GENERAL.....	1
T-19.5	FABRICATION - ENVIRONMENT	1
T-19.6	FABRICATION - EQUIPMENT	3
T-19.7	FABRICATION - MATERIAL STORAGE	5
T-19.8	FABRICATION - PROCEDURES	5
T-19.9	FABRICATION - ADDITIONAL QUALITY ASSURANCE PROCEDURES.....	7
T-19.10	MATERIALS QUALITY CONTROL - IN GENERAL.....	8
T-19.11	INCOMING QUALITY CONTROL - GEL COAT	8
T-19.12	INCOMING QUALITY CONTROL - RESIN.....	13
T-19.13	INCOMING QUALITY CONTROL - CATALYST	21
T-19.14	INCOMING QUALITY CONTROL - FIBERGLASS	21
T-19.15	INCOMING QUALITY CONTROL - LAMINATE	22
T-19.16	SOURCES FOR TESTING EQUIPMENT	25
T-19.17	BIBLIOGRAPHY	27

T-19 FABRICATION EQUIPMENT, PROCEDURES, AND MATERIALS QUALITY

CONTROL

T-19.1 *PURPOSE*

This Technical Information Report presents guidelines for equipment, procedures, and inspection and testing of materials used in the fabrication of FRP laminates.

T-19.2 *SCOPE*

This Technical Information Report applies to the fabrication of FRP hulls and component parts including:

- a. selection and use of equipment,
- b. recommendations and considerations concerning fabrication procedures, and
- c. inspection and testing of constituent materials.

T-19.3 *INTRODUCTION*

This Technical Information Report was developed to reduce the risk of blistering. However, high quality laminates will be achieved by following the recommendations in this Technical Information Report. Blister resistance cannot be achieved by doing any one thing or by the selection of any one element of a composite. Blister resistance may be improved by a combination of material selection, fabrication procedures, a quality control and testing program, environmental factors during fabrication and use of the end product, and care and maintenance of the end product. The elements of this report provide guidelines to assist in developing an overall approach that will provide for a reduced risk of blistering.

T-19.4 *REQUIREMENTS - GENERAL*

- a. You must comply with regulations and requirement of federal, state, and local agencies and insurance carriers.
- b. OSHA requires that current Material Safety Data Sheets (MSDS) be obtained from suppliers and readily available for inspection.
- c. OSHA requires that the safety training of personnel be performed for all materials in the plant.

T-19.5 *FABRICATION - ENVIRONMENT*

- a. Proper and adequate lighting is required in work areas (mold prep, gel coat, lamination, inspection, etc.).
- b. Sufficient ventilation is required by federal, state, and local regulations to remove fumes, overspray, and dust from molds and the lamination area.