

Element Z General Design Requirements

Room Standards

Z4070 Cerrobend Mold Fabrication Rooms

PART 1 - GENERAL

1.01 OVERVIEW

- A. This document addresses minimum code requirements, guidelines, and regulations, and provides design and construction criteria for Cerrobend mold fabrication rooms at the University of Texas MD Anderson Cancer Center (Owner).
- B. Where the A/E considers that compliance with these requirements is not possible, the A/E shall communicate such concerns in writing to the Owner's Project Manager and resolve all non-compliance issues in sufficient time during the design phase of the Project to meet contract schedule obligations.

PART 2 - DESIGN CRITERIA

2.01 CODES AND REGULATIONS

- A. The NFPA 101 Life Safety Code shall be adhered to for all life safety requirements.
- B. The Occupational Safety and Health Administration 29 Code of Federal Regulations (CFR) 1910.1027 Cadmium Standard, 29 CFR 1910.1025 Lead Standard, and 29 CFR 1910.1000 Table Z-1.

2.02 GENERAL

- A. The Owner's Environmental Health and Safety department shall be consulted on final design considerations, and must approve in writing any deviations from this guideline.
- B. Provide a HEPA filtered biosafety cabinet or fume hood with a minimum face velocity of 100 fpm or other feasible local exhaust ventilation for melting and handling of the Cerrobend in accordance with the Radiation Products Design Inc. Cerrobend Safety Data Sheet (http://www.rpdinc.com/879-158_158oF_Low_Melting_Alloy_2011_WEB.pdf). Interior of the biosafety cabinet or fume hood shall be stainless steel.
- C. The room shall maintain a negative pressure in relation to the surrounding rooms.
 - 1. Provide a minimum negative air flow offset of 100 CFM.
- D. Provide fresh air ventilation at a rate of not less than 1 CFM/ft² of floor area in the room.
- E. Emergency power shall be provided to ventilation fan(s) serving the room.
- F. Provide a material cutting area under a portable or stationary local exhaust ventilation or HEPA vacuum system.
- G. Provide a hand washing sink within the room.
- H. Provide finish materials that facilitate cleaning/removal of Cerrobend surface contamination without requiring replacement of the finish.

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1. Countertops: Provide stainless steel.
2. Backsplashes:
 - a. Provide stainless steel extended to 12 inches above countertop at back and sides.
 - b. Provide 0.040 PETG (polyethylene terephthalate glycol) sheet with suede texture to 72 inches AFF at back and sides of countertop.
 - c. At side walls adjacent to countertop, provide PETG sheet from top of base at floor to 72 inches AFF, and extending 2 feet out from face of base cabinet.
3. Walls: Provide epoxy paint with eggshell finish.
4. Floor:
 - a. Provide seamless sheet vinyl flooring with heat welded seams and smooth finish surface.
 - b. Flooring shall be homogeneous 0.080 sheet construction with UV- cured polyurethane finish.
 - 1) Specified flooring product shall have been tested with liquid Cerrobend dropped from countertop height to ensure it can be easily removed, with no lasting visible effect.
5. Base: Provide 4 inch, 100% vulcanized rubber.
6. Ceiling: Provide 2' x 2' lay-in acoustical tile.
- I. Painted steel cabinetry, consisting of both door and drawer units, shall be provided in the room for the purpose of storing personal protective equipment as well as general use equipment and supplies.

PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.01 GENERAL

- A. Obtain approval from Owner's Project Manager/Planner Designer for all finish schedules prior to issuance of Construction Documents.

PART 4 - PRODUCTS

4.01 GENERAL

- A. For all projects (renovation and new), refer to Owner's Interior Finishes Standards. These are available on the Owner's Design Guidelines website:
<http://www2.mdanderson.org/depts/cpm/standards/interiors.html>

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- B. For renovation projects, refer to Owner's Master Construction Specifications. These are available on the Owner's Design Guidelines website:

<http://www2.mdanderson.org/depts/cpm/standards/specs.html>

PART 5 - DOCUMENT REVISION HISTORY

| Issue | Date | Revision Description | Reviser |
|--------|----------|-----------------------------|---------|
| | 11-06-14 | Initial Adoption of Element | |
| Rev. 1 | | | |
| Rev. 2 | | | |
| Rev. 3 | | | |
| Rev. 4 | | | |
| Rev. 5 | | | |

END OF ELEMENT Z4070