

SECTION 13090 – Borated Polyethylene



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PART 1 - GENERAL

Polyethylene is used to attenuate neutrons when no other hydrated barrier material is existing or available.

1.1 ACCEPTABLE MANUFACTURERS

Borated polyethylene shall be manufactured supplied by NELCO.

1.2 SUBMITTALS

In accordance with conditions of the contract and Division I, submit six (6) copies of product data sheets for each type of polyethylene sheet.

1.3 PRODUCT HANDLING

Up to 15 panels or a maximum of 2,300 pounds shall be placed upon a wood pallet and stretch-wrapped around all four sides. Three 1" wide steel bands shall be fastened horizontally and one longitudinally.

PART 2 - PRODUCTS

2.1 5% BORATED POLYETHYLENE

5% borated polyethylene is typically manufactured in 1" thick sheets, 48" wide X 96" high, that are green in color and weigh approximately 150 pounds each. NELCO offers custom cutting services, as well as machining for close tolerances.

2.2 9% BORATED POLYETHYLENE

9% borated polyethylene is also available in "Flex Panel", ¼"th. X 48" wide X 96" high. These rugged sheets weigh only 27 pounds, making them easy to handle. The attenuation factor for thermal neutrons is 22.5 for these sheets. The panels are useful for shielding irregular shapes, such as cylinders.

PART 3 - EXECUTION

3.1 Installation

Install this product in accordance with Part 3 – Execution description of the assemblies specified as using this product.