



© British Standards Institution. No part of this publication may be photocopied or otherwise reproduced without the prior permission in writing of BSI

British Standard

Lining of equipment with polymeric materials for the process industries

Part 2. Specification for lining with non-sheet applied thermoplastics

Revêtements intérieurs à base de polymères des matériels pour industries de procédés
Partie 2. Revêtement par thermoplastiques non filmogènes — Spécifications

Auskleidung von betriebstechnischen Anlagen in der verarbeitenden Industrie
mit Polymerstoffen

Teil 2. Thermoplastische Auskleidungen mit anderen Materialien als aus Folie

British Standards Institution

Foreword

This Part of BS 6374 has been prepared under the direction of the Pressure Vessels Standards Committee. It is one of five Parts of a new standard that will supersede Parts 1, 4, 5 and 6 of CP 3003; the change in format arising from the fresh approach adopted to conform with developments in the associated lining technology.

The Technical Committee would like to acknowledge the contributions made by the Rubber and Plastics Research Association of Great Britain which supplied the initial draft document, and the users and the manufacturers on whose submissions the document was based.

The plastics linings referred to in this standard are used for a number of different duties, including protection against corrosive environments, prevention of contamination of products and surface finishes that do not foul easily or that can be cleaned easily. Specific linings are used for protection against abrasion or erosion.

The linings are applied using fluidized bed dipping, powder spray, plastisol or liquid dipping, dispersion spray or solvent spray techniques.

The thickness of linings based on these materials varies considerably with the particular plastic selected and ranges from 50 μm to 10 mm. When the thickness of the lining is less than 400 μm it is difficult to obtain linings which are pinhole free. Furthermore, even if linings as applied are free from imperfections, consideration has to be given to the possibility of damage in operation.

Before selecting a lining and the thickness at which it will be applied, some knowledge is required of the likely corrosion rate of the substrate and the mechanism of that corrosion. If the corrosion rate is low then the thickness of the lining is not a critical factor. If the corrosion rate is high and is due to simple solution of the metal, then it is not advisable to use thin linings because of the risk of severe corrosion through a pinhole. On the other hand, if a high corrosion rate is caused by an effect such as erosion/corrosion, then thin linings can be an effective barrier.

It has been assumed in the drafting of this British Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

Compliance with a British Standard does not of itself confer immunity from legal obligations.