

Biotechnology — Performance criteria for vessels —

Part 4: Bioreactors

The European Standard EN 13311-4:2001 has the status of a British Standard

ICS 07.080

National foreword

This British Standard is the official English language version of EN 13311-4:2001.

The UK participation in its preparation was entrusted to Technical Committee CII/ 58, Biotechnology, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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This British Standard, having been prepared under the direction of the Sector Committee for Materials and Chemicals was published under the authority of the Standards Committee and comes into effect on 15 May 2001

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 233 "Biotechnology", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2001, and conflicting national standards shall be withdrawn at the latest by September 2001.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This standard is one of a series of European Standards concerned with performance criteria for vessels. These standards are:

EN 13311-1, *Biotechnology - Performance criteria for vessels - Part 1: General performance criteria.*

EN 13311-2, *Biotechnology - Performance criteria for vessels - Part 2: Pressure protection devices.*

EN 13311-3, *Biotechnology - Performance criteria for vessels - Part 3: Glass pressure vessels.*

EN 13311-4, *Biotechnology - Performance criteria for vessels - Part 4: Bioreactors.*

EN 13311-5, *Biotechnology - Performance criteria for vessels - Part 5: Kill tanks.*

EN 13311-6, *Biotechnology - Performance criteria for vessels - Part 6: Chromatography columns.*

Annexes A and B are informative.

This standard includes a bibliography.

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