

Title (en)

Multiple-layer curtain coating method and apparatus with improved bottom-layer uniformity

Title (de)

Mehrschichtiges Vorhangbeschichtungsverfahren und Apparat mit verbesserter Gleichmässigkeit der unteren Schicht

Title (fr)

Procédé de revêtement multicouche par rideau et appareil à uniformité améliorée de la couche inférieure

Publication

**EP 1197796 A1 20020417 (EN)**

Application

**EP 00203507 A 20001010**

Priority

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Abstract (en)

A curtain-coating method and apparatus for coating a moving web by depositing a composite of a plurality of layers of discrete coating compositions comprising a bottom layer and at least one other layer onto a surface of the moving web comprising the steps of: (a) forming predictive first and second free-falling adjacent partial curtains from a horizontal lip of an extrusion die, the first free-falling partial curtain being comprised of the coating composition of the bottom layer, the second free-falling partial curtain being comprised of a coating composition of a second layer of the multiple layer composite; (b) inspecting the first and second free-falling adjacent partial curtains proximate to the horizontal lip to determine if the width of the first free-falling partial curtain initially gets wider, narrower, or remains constant; (c) adding a measured amount of a surfactant to the coating composition of the bottom layer if the width of the first free-falling curtain initially gets narrower such that the width of the first free-falling curtain either remains constant or gets wider proximate to the horizontal lip; (d) determining the amount of surfactant to add to the coating composition of the bottom layer of the composite from the measured amount; (e) forming the composite of the plurality of layers on a slide surface of a multiple slot curtain coating apparatus, the coating composition of the bottom layer including the determined amount of surfactant, surfactant mixture, or other surface-active material; (f) forming a free-falling curtain of the composite of the plurality of layers; (g) guiding each lateral edge of the free-falling curtain by substantially vertical edge guides spaced apart by the width of the composite of the plurality of layers; and (h) impinging the free-falling curtain on the moving web. <IMAGE>

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**G03C 1/74**; **B05C 5/00**

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] GB 1508198 A 19780419 - CIBA GEIGY AG
- [DA] US 5871821 A 19990216 - KONDO YOSHIKAZU [JP], et al

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