

**CPC****COOPERATIVE PATENT CLASSIFICATION****C23D**

**ENAMELLING OF, OR APPLYING A VITREOUS LAYER TO, METALS (**  
**chemical composition of the enamels [C03C](#) )**

**Guidance heading:**

**C23D 1/00**                    **Melting or fritting the enamels ; Apparatus or furnaces therefor**

C23D 1/02                    .    Granulating the melt ; Drying the granules

**Guidance heading:**   **Coating with the enamels**

**C23D 3/00**                    **Chemical treatment of the metal surfaces prior to coating ( cleaning and de-greasing**  
**of metallic objects [C23G](#) )**

**C23D 5/00**                    **Coating with enamels or vitreous layers { ( including applying fused refractory layers**  
**[C23C 4/10](#) , [C23C 24/10](#) ) }**

C23D 5/005                    .    { by a method specially adapted for coating special objects }

C23D 5/02                    .    by wet methods

C23D 5/04                    .    by dry methods

C23D 5/06                    .    producing designs or letters

C23D 5/08                    .    Applying enamels non-uniformly over the surface

C23D 5/10                    .    with refractory materials

**NOTE**

Group [C23D 5/10](#) is no longer used for classification. Documents are in the state  
of being reclassified to [C23C 4/10](#) and [C23C 24/10](#) .

**C23D 7/00**                    **Treating the coatings, e.g. drying before burning**

**Guidance heading:**   **Firing the enamels**

**C23D 9/00**                    **Ovens specially adapted for firing enamels**

C23D 9/02                    .    Non-electric muffle furnaces

C23D 9/04                    .    Non-electric tunnel ovens

C23D 9/06 . Electric furnaces

C23D 9/08 . Supporting devices for burning-bars

C23D 9/10 . Loading or unloading devices

**C23D 11/00 Continuous processes ; Apparatus therefor**

**Guidance heading: After-treatment**

**C23D 13/00 After-treatment of the enamelled articles**

C23D 13/02 . Removing defects by local re-melting of the enamel ; Adjusting the shape

**C23D 15/00 Joining enamelled articles to other enamelled articles by processes involving an enamelling step**

**C23D 17/00 De-enamelling**