

**CPC****COOPERATIVE PATENT CLASSIFICATION****C23D****ENAMELLING OF, OR APPLYING A VITREOUS LAYER TO, METALS**(chemical composition of the enamels [C03C](#))**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**