

**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

**Coating with the enamels****C23D 3/00****Chemical treatment of the metal surfaces prior to coating** ([cleaning and degreasing 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

**WARNING**

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****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****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**