



## Building and Construction

# External Renovation of St Mary's Cathedral, Tokyo

St Mary's Cathedral, Tokyo was designed by Kenzo Tange in 1964. Originally the building was completed using grade SUS 304. Although highly corrosion resistant, this grade of stainless steel has exhibited minor thermal expansion problems in large-scale architectural projects. During the renovation of the cathedral, completed in 2007, the existing external stainless steel wall was replaced with SUS 445J1 grade. SUS 445J1 is a ferritic grade that also exhibits high corrosion resistance and excellent thermal expansion properties.



**Location/environment** | TOKYO, JAPAN/OUTDOOR

**Product** | COLD ROLLED STAINLESS STEEL STRIP

**Fabrication process** | FORMING

**Grade/surface** | SUS 445J1/DULL FINISH

**Material thickness/diameter** | 0.4 MM THICK

**Weight** | 47 METRIC TONS

**Competing material** | GALVALUME STEEL, COLOURED STEEL

**Date of completion** | SEPTEMBER 2007

**Manufacturer** | TAISEI CORPORATION/GANTAN BEAUTY INDUSTRY CO., LTD/ISIWATARI INDUSTRY

**Material supplier** | NIPPON METAL INDUSTRY CO., LTD.

**Source of information** | JSSA/NIPPON METAL INDUSTRY CO., LTD.

**Remarks** | HIGH CORROSION-RESISTANCE FERRITIC STAINLESS STEEL IS OFTEN USED IN THE RENOVATION OF PUBLIC BUILDINGS.