
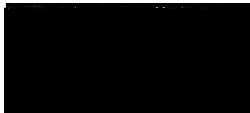


Surface appearance of bent positions (OT bend)	
Zn coated steel sheet	
55%Al-Zn alloy coated steel sheet	

2mm

Development of New 55%Al-Zn Alloy Coated Steel Sheets  
with Excellent Corrosion Resistance and Formability, "SUPER GENIUS" and "GALFLEX-COLOR"

Based on 55%Al-Zn alloy coated steel sheets, NKK has developed and marketed new coated products that have, at the same time, excellent corrosion resistance and formability

Furthermore, a new chromium-free corrosion inhibitor was developed and introduced into the organic coating film with the gradient structure developed for "GENIUS". This technology overcame the remaining shortcoming of 55%Al-Zn alloy coated steel sheets, that is, poor corrosion

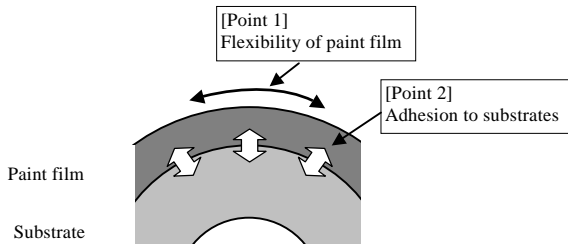
**Fig.7 "SUPER GENIUS" after severe forming**

### **3. "GALFLEX-COLOR" - a new prepainted steel sheet for construction applications**

#### **3.1 Coating design**

The type of steel sheet that is most commonly used as the substrate for a prepainted steel sheet is hot-dip galvanized steel sheet<sup>1)</sup>. However in recent years, it is losing its share of the market to a more corrosion resistant Zn-Al alloy coated steel sheet. In particular, prepainted steel sheets that use 55%Al-Zn alloy coated steel sheets as substrates are rapidly expanding their application in the roofing and

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**Fig.11**