



# Cold Rolled Steel Sheets with Ultra High Lankford Value and Excellent Press Formability\*



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## Synopsis:

*It is well known from laboratory experiments that lubricated ferrite rolling in hot-rolling is effective in developing {111} texture. In order to apply this metallurgical principle to an actual industrial mill, Kawasaki Steel developed an endless hot-rolling process at Chiba Works, making it possible to employ heavily lubricated hot-rolling over the full length of a hot strip with stable operation. With the application of a hot strip having*

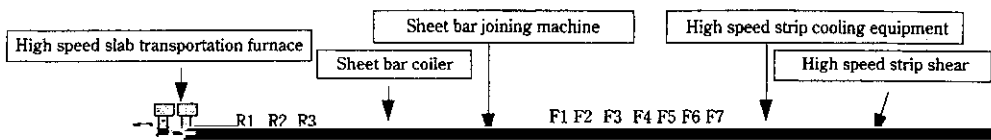
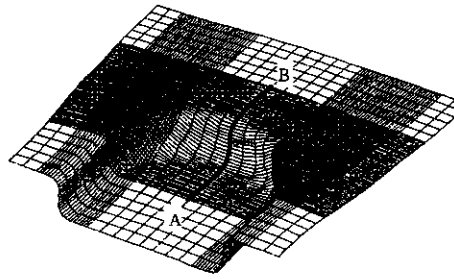




Table 1 Typical mechanical properties of newly developed cold rolled steel sheet ( $t = 1.2$ )

Fig. 9 Model of real floor panel and analysis conditions



Name of FEM code: LS-DYNA version 940  
Number of nodes: 2 701 (sheet), 375 (tools)  
Number of elements:  
2 592 (sheet) Belytschko-Tsay shell element, 300 (too  
Hardware: SUNW, Ultra-1  
Punch diameter: 600 mm  
Radius of punch shoulder: 50 mm  
Radius of die shoulder: 40 mm  
Sheet thickness: 0.7 mm  
Yield strength: 140 MPa

