

### Applicable Standards

The following list contains specification references for products we can offer. Applicable Standards describe specification requirements our suppliers can meet.

|                                      | Applicable Standards |
|--------------------------------------|----------------------|
| Grade designations                   | JIS G3312            |
| Physical properties of paint coating | JIS G3312            |
| Paint coating durability             | JIS G3312            |
| Weight & Thickness of Zinc Coating   | JIS G3312            |
| Standard Dimension                   | JIS G3312            |
| Dimensional Tolerances               | JIS G3312            |
| Camber                               | JIS G3312            |
| Flatness                             | JIS G3312            |

### JIS G3312 - 94

#### Prepainted Hot-dip Zinc-coated Steel Sheets and Coils

- Grades & Thickness

| Application                              | Classified Symbol | Nominal Thickness(mm)             | Classified Symbol of base metal | Remarks  |
|--|-------------------|-----------------------------------|---------------------------------|--|
| Commercial<br>Commercial-Hard<br>Drawing | CGCC              | 0.25 and over, up to and incl.1.6 | SGCC                            | For the classification of coating and the coating mass on the base metal for paint |
|  | CGCH              | 0.11 and over, up to and incl.1.0 | SGCH                            |  |
|  | CGCD1             | 0.40 and over, up to and incl.1.6 | SGCD 1                          |  |
| Structural                               | CGC 340           | 0.25 and over, up to and incl.1.6 | SGC 340                         |  |
|  | CGC 400           | 0.25 and over, up to and incl.1.6 | SGC 400                         |  |
|  | CGC 440           | 0.25 and over, up to and incl.1.6 | SGC 440                         |  |
|  | CGC 490           | 0.25 and over, up to and incl.1.6 | SGC 490                         |  |
|  | CGC 570           | 0.25 and over, up to and incl.1.6 | SGC 570                         |  |

|  |  |                                   |  |                                   |
|--|--|-----------------------------------|--|-----------------------------------|
|  |  | 0.25 and over, up to and incl.1.6 |  | coating,. JIS G 3302 shall apply. |
|--|--|-----------------------------------|--|-----------------------------------|

- Physical Properties of Paint Coatings

| Item                | Test method          | CGCH, CHC570 | CGCC,CGCD1 CGC340, 400, 440, 490 | Physical Properties  |
|---------------------|----------------------|--------------|----------------------------------|--|
| Bending adhesion    | Bend test            | -            | O                                | No peeling on the outer surface of the bent portion not less than 7mm from each side edge of the test piece. |
| Paint film hardness | Pencil hardness test | O            | O                                | No scratch marks on the paint film   |
| Impact resistance   | Impact test          | -            | O                                | No Peeling   |
| Adhesion            | Cross-scoring test   | O            | -                                | No irregularities on the tested portion  |

- Paint Coating durability

| Class | Salt spray Test | Weathering Test(Dew cycle) |
|-------|-----------------|----------------------------|
| 1     | 200 hours       | -                          |
| 2     | 500 hours       | -                          |
| 3     | 2000 hours      | 1500 hours                 |

- Weight of Zinc Coating & Equivalent Thickness(mm)

|  |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|
| Symbol indicating weight of zinc coating | Z 06  | Z 08  | Z 10  | Z 12  | Z 18  | Z 20  |
| Equivalent thickness of coating          | 0.013 | 0.017 | 0.021 | 0.026 | 0.034 | 0.040 |
| Symbol indicating weight of zinc coating | Z 22  | Z 25  | Z 27  | Z 35  | Z 45  | Z 60  |
| Equivalent thickness of coating          | 0.043 | 0.049 | 0.054 | 0.064 | 0.080 | 0.102 |
| Symbol indicating weight of zinc coating | F 04  | F 06  | F 08  | F 10  | F 12  | F 18  |
| Equivalent thickness of coating          | 0.008 | 0.013 | 0.017 | 0.021 | 0.026 | 0.034 |

- Standard Dimension

Standard Nominal Thickness (mm)

0.25 0.27 0.30 0.35 0.40 0.50 0.60 0.80 1.0 1.2 1.4 1.6

Standard Widths and Sheet Lengths (mm)

| Width (mm) | Sheet Length (mm) |      |      |      |      |      |      |
|------------|-------------------|------|------|------|------|------|------|
| 762        | 1829              | 2134 | 2438 | 2743 | 3048 | 3353 | 3658 |
| 914        | 1829              | 2134 | 2438 | 2743 | 3048 | 3353 | 3658 |
| 1000       | 2000              |      |      |      |      |      |      |
| 1219       | 2438              | 3048 | 3658 |      |      |      |      |

- Thickness Tolerances (Applicable for classes 1 and 2 for one side and class 1 for both sides in the classification of paint coating durability)

| Specified Thickness(mm) | Specified Width(mm) |                  |                   |
|-------------------------|---------------------|------------------|-------------------|
|                         | Under 630           | 630 to 1000 excl | 1000 to 1250 excl |
| Under 0.25              | +0.08               | +0.08            | +0.08             |
|                         | -0.03               | -0.03            | -0.03             |
| 0.25 to 0.40 excl       | +0.09               | +0.09            | +0.09             |
|                         | -0.04               | -0.04            | -0.04             |
| 0.40 to 0.60 excl       | +0.10               | +0.10            | +0.10             |
|                         | -0.05               | -0.05            | -0.05             |
| 0.60 to 0.80 excl       | +0.11               | +0.11            | +0.11             |
|                         | -0.06               | -0.06            | -0.06             |
| 0.80 to 1.00 excl       | +0.12               | +0.12            | +0.13             |
|                         | -0.07               | -0.07            | -0.08             |
| 1.00 to 1.25 excl       | +0.13               | +0.13            | +0.14             |
|                         | -0.08               | -0.08            | -0.09             |
| 1.25 to 1.60 excl       | +0.14               | +0.15            | +0.16             |
|                         | -0.09               | -0.10            | -0.11             |
| 1.60                    | +0.15               | +0.16            | +0.17             |
|                         | -0.10               | -0.11            | -0.12             |

- Thickness Tolerances (Applicable for class 3 for one side and classes 2 and 3 for both sides in the classification of paint coating durability)

| Specified Thickness(mm) | Specified Width(mm) |                  |                   |
|-------------------------|---------------------|------------------|-------------------|
|                         | Under 630           | 630 to 1000 excl | 1000 to 1250 excl |
| Under 0.25              | +0.10               | +0.10            | +0.10             |
|                         | -0.02               | -0.02            | -0.02             |
| 0.25 to 0.40 excl       | +0.11               | +0.11            | +0.11             |
|                         | -0.03               | -0.03            | -0.03             |
| 0.40 to 0.60 excl       | +0.12               | +0.12            | +0.12             |
|                         | -0.04               | -0.04            | -0.04             |
| 0.60 to 0.80 excl       | +0.13               | +0.13            | +0.13             |
|                         |                     |                  |                   |

|                   |                |                |                |
|-------------------|----------------|----------------|----------------|
|                   | -0.05          | -0.05          | -0.05          |
| 0.80 to 1.00 excl | +0.14<br>-0.06 | +0.14<br>-0.06 | +0.15<br>-0.07 |
| 1.00 to 1.25 excl | +0.15<br>-0.07 | +0.15<br>-0.07 | +0.16<br>-0.08 |
| 1.25 to 1.60 excl | +0.16<br>-0.08 | +0.17<br>-0.09 | +0.18<br>-0.10 |
| 1.60              | +0.17<br>-0.09 | +0.18<br>-0.10 | +0.19<br>-0.11 |

- Tolerances on Width and Length (mm)

| Item   | Tolerance |
|--------|-----------|
| Width  | + 7,0     |
| Length | +15,0     |

- Weight Tolerances

| Calculated Weight of One Lot    | Tolerance, % | Remarks  |
|---------------------------------|--------------|--|
| Under 600kg (1,300 lb)          | +/- 10       | One lot consists of sheets of the same quality, same style and size, and same coating weight |
| 600Kg to 2 tons (4,409 lb) excl | +/- 7.5      |  |
| 2tons and over                  | +/- 5        |  |

- Camber (mm)

| Width | Length | Flat Sheet |               | coil |
|-------|--------|------------|---------------|------|
|       |        | Up to 2000 | 2000 and over |      |
|       |        |            |               |      |

|              |   |                         |
|--------------|---|-------------------------|
| Up to 630    | 4 | 4 in any 2000 of length |
| 630 and over | 2 | 2 in any 2000 of length |

- Flatness (mm)

| Width                     | Classification | Bow     | Edge Wave | Center Wave |
|---------------------------|----------------|---------|-----------|-------------|
|                           | Up to 1000     |         | 12 Max,   | 8 Max,      |
| 1000 and over, Up to 1000 |                | 15 Max, | 10 Max,   | 8 Max,      |

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