

JIS G3445 Japanese Standard (Mechanical Pipe)

Standard:

JIS G3445

Application:

It is applied to machinery, automobile, bicycle, furniture, appliance and other mechanical parts as carbon steel pipe.

Grades of Main Steel Pipe:

STKM11A, STKM12(A,B,C), STKM13(A,B,C), STKM14(A,B,C)

Chemical Composition

| Standard | Steel Grade | Chemical Composition(%) | | | | |
|-----------|-------------|-------------------------|------|-----------|-------|-------|
| | | C | Si | Mn | P | S |
| JIS G3445 | STKM11A | 0.12 | 0.35 | 0.60 | 0.040 | 0.040 |
| | STKM12A | 0.20 | 0.35 | 0.60 | 0.040 | 0.040 |
| | STKM12B | | | | | |
| | STKM12C | | | | | |
| | STKM13A | 0.25 | 0.35 | 0.30-0.90 | 0.040 | 0.040 |
| | STKM13B | | | | | |
| | STKM13C | | | | | |
| | STKM14A | 0.30 | 0.35 | 0.30-1.00 | 0.040 | 0.040 |
| | STKM14B | | | | | |
| | STKM14C | | | | | |

Mechanical Properties

| Standard | Steel Grade | Mechanical Properties | | |
|-----------|-------------|-----------------------|---------------------|---------------|
| | | Tensile Strength(Mpa) | Yield Strength(Mpa) | Elongation(%) |
| JIS G3445 | STKM11A | 295 | \ | 35 |
| | STKM12A | 345 | 175 | 35 |
| | STKM12B | 390 | 275 | 25 |
| | STKM12C | 470 | 355 | 20 |
| | STKM13A | 375 | 215 | 30 |
| | STKM13B | 440 | 305 | 20 |
| | STKM13C | 510 | 380 | 15 |
| | STKM14A | 410 | 245 | 25 |
| | STKM14B | 500 | 355 | 15 |

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|--|---------|-----|-----|----|
| | STKM14C | 550 | 410 | 15 |
|--|---------|-----|-----|----|

Remarks

| | | |
|----------------|-----------------|---------------------|
| HR: hot rolled | CW: cold worked | SR: stress relieved |
| A: annealed | N: normalized | HF |