

This page is mainly introduced the SAE EV5 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of SAE EV5, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Special Steel SAE EV5

### SAE EV5 Standard Number:

| ITEM | Standard Number | Descriptions |
|------|-----------------|--------------|
|------|-----------------|--------------|

### SAE EV5 Chemical composition (mass fraction) (wt.%)

| Chemical  |           |           | Min.(%)   |           |           |           | Max.(%) |    |       |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|----|-------|
| C         | Si        | Mn        | P         | S         | Cr        | Ni        | Mo      | V  | Ta    |
| 0.30-0.45 | 2.75-3.25 | 0.80-1.30 | Max 0.040 | Max 0.030 | 18.0-20.0 | 7.50-8.50 |         |    |       |
| W         | N         | Cu        | Co        | Pb        | B         | Nb        | Al      | Ti | Other |
|           |           |           |           |           |           |           |         |    |       |

### SAE EV5

### SAE EV5 Physical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength   | 23      | $\sigma_{0.2} \geq$ /MPa |
| Elongation       | 65      | $\delta_5 \geq$ (%)      |
| $\psi$           | -       | $\psi \geq$ (%)          |
| Akv              | -       | $Akv \geq$ /J            |
| HBS              | 123-321 | -                        |
| HRC              | 30      | -                        |

### SAE EV5 Mechanical Properties

|                  |         |                          |
|------------------|---------|--------------------------|
| Tensile strength | 231-231 | $\sigma_b$ /MPa          |
| Yield Strength   | 154     | $\sigma_{0.2} \geq$ /MPa |
| Elongation       | 56      | $\delta_5 \geq$ (%)      |

|     |         |        |
|-----|---------|--------|
| ψ   | -       | ψ≥(%)  |
| Akv | -       | Akv≥/J |
| HBS | 235-268 | -      |
| HRC | 30      | -      |

### SAE EV5 Heat Treatment Regime

| Annealing | Quenching | Tempering | Normalizing | Q & T |
|-----------|-----------|-----------|-------------|-------|
| √         | √         | √         | √           | √     |

### SAE EV5 Range of products

| Product type    | Products                                 | Dimension                  | Processes                                   | Deliver Status  |
|-----------------|--|----------------------------|---|---|
| Plates / Sheets | Plates / Sheets                          | 0.08-200mm(T)*W*L          | Forging, hot rolling and cold rolling       | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Steel Bar       | Round Bar, Flat Bar, Square Bar          | Φ8-1200mm*L                | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning, Shot Blasting,                          |
| Coil / Strip    | Steel Coil /Steel Strip                  | 0.03-16.0x1200mm           | Cold-Rolled & Hot-Rolled                    | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Pipes / Tubes   | Seamless Pipes/Tubes, Welded Pipes/Tubes | OD:6-219mm x WT:0.5-20.0mm | Hot extrusion, Cold Drawn, Welded           | Annealed, Solution and Aging, Q+T, ACID-WASHED                |

**We can produce Special Steel the specifications follows:**