## ANCHOR SELECTOR / Chemical – Adhesives

<table>
<thead>
<tr>
<th>For Use with</th>
<th>Concrete Condition</th>
<th>Acceptable Drilling Method</th>
<th>Base Material Temperature at Installation</th>
<th>Cure Time (Working Time)</th>
<th>Environmental Qualifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rebar</td>
<td>Anchor Red</td>
<td>Dry</td>
<td>ESR-3187</td>
<td>14°F (10°C)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Water saturated</td>
<td>ESR-3187</td>
<td>104°F (40°C)</td>
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<tr>
<td></td>
<td></td>
<td>Submerged</td>
<td>ESR-3187</td>
<td>20 hr. (3 hr)</td>
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<tr>
<td></td>
<td></td>
<td>Hammer Drilling</td>
<td>ESR-3187</td>
<td>1.5 hr. (15 min)</td>
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<tr>
<td></td>
<td></td>
<td>Hollow Drill Bit</td>
<td>ESR-3187</td>
<td>1 hr. (8 min)</td>
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<tr>
<td></td>
<td></td>
<td>Diamond Core</td>
<td>ESR-3187</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Uncracked</td>
<td>ESR-3187</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cracked</td>
<td>ESR-3187</td>
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<td></td>
<td></td>
<td>Seismic</td>
<td>ESR-3187</td>
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<tr>
<td></td>
<td></td>
<td>Grounded Masonry</td>
<td>ESR-3187</td>
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<tr>
<td></td>
<td></td>
<td>Hollow Masonry</td>
<td>ESR-3187</td>
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<tr>
<td></td>
<td></td>
<td>Solid Brick</td>
<td>ESR-3187</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Hollow core</td>
<td>ESR-3187</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Multi Wall Brick</td>
<td>ESR-3187</td>
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</tr>
</tbody>
</table>

### Hybrid Adhesives (Fast Cure)

- **HIT-HY 200-R**
  - Base Material Temperature at Installation: ESR-3187
  - Cure Time (Working Time): 14°F (10°C)
  - Environmental Qualifications: 104°F (40°C), 20 hr. (3 hr), 1.5 hr. (15 min), 1 hr. (8 min)

- **HIT-HY 200-A**
  - Base Material Temperature at Installation: ESR-3187
  - Cure Time (Working Time): 14°F (10°C)
  - Environmental Qualifications: 104°F (40°C), 7 hr., 45 min (7 min), 30 min (3 min)

- **HIT-HY 100**
  - Base Material Temperature at Installation: ESR-3574/ER-547
  - Cure Time (Working Time): 14°F (10°C)
  - Environmental Qualifications: 104°F (40°C), 12 hr. (3 hr), 1 hr. (8 min), 30 min (2 min)

- **HIT-HY 270**
  - Base Material Temperature at Installation: ESR-4143
  - Cure Time (Working Time): 23°F (-5°C)
  - Environmental Qualifications: 104°F (40°C), 6 hr. (10 min), 1.5 hr. (4 min), 20 min (1 min)

- **HIT-HY 10 PLUS**
  - Base Material Temperature at Installation: ESR-4143
  - Cure Time (Working Time): 41°F (5°C)
  - Environmental Qualifications: 104°F (40°C), 2.5 hr. (10 min), 45 min (5 min), 20 min (2 min)

- **HIT-ICE**
  - Base Material Temperature at Installation: ESR-3574/ER-547
  - Cure Time (Working Time): -10°F (-23°C)
  - Environmental Qualifications: 90°F (32°C), 36 hr. (1.5 hr), 1 hr. (6 min), 35 min (1 min)

### Epoxy Resins (Slow Cure)

- **HIT-RE 500 V3**
  - Base Material Temperature at Installation: ESR-2322/ER-3814
  - Cure Time (Working Time): 23°F (-5°C)
  - Environmental Qualifications: 104°F (40°C), 168 hr. (2 hr), 6.5 hr. (25 min), 4 hr. (10 min)

- **HIT-RE 100**
  - Base Material Temperature at Installation: ESR-3829
  - Cure Time (Working Time): 41°F (5°C)
  - Environmental Qualifications: 104°F (40°C), 72 hr. (5 hr), 12 hr. (30 min), 4 hr. (12 min)

- **HIT-RE 10**
  - Base Material Temperature at Installation: ESR-4372
  - Cure Time (Working Time): 41°F (5°C)
  - Environmental Qualifications: 104°F (40°C), 72 hr. (5 hr), 24 hr. (6 min), 12 hr. (30 min)

### Adhesive Capsules (Fast Cure)

- **HYU2**
  - Base Material Temperature at Installation: ESR-4372
  - Cure Time (Working Time): 14°F (10°C)
  - Environmental Qualifications: 104°F (40°C), 5 hr, 5 min, 5 min
## Cone Shaped “Zero-Cleaning” Anchor Rods

<table>
<thead>
<tr>
<th>HIT-Z</th>
<th>with HIT-HY 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cone Shaped “Zero-Cleaning” Anchor Rods</td>
<td>Carbon steel, zinc plated</td>
</tr>
<tr>
<td>HIT-Z-R</td>
<td>with HIT-HY 300</td>
</tr>
</tbody>
</table>

## All-Threaded Anchor Rods

| HAS-V-36  | ■  |
| HAS-E-55  | ■  |
| HAS-B-105 | ■  |

| HAS-V-36 HDG | ■  |
| HAS-E-55 HDG | ■  |
| HAS-B-105 HDG | ■  |

| HAS-R 304 SS  | ■  |
| HAS-R 316 SS  | ■  |

## Internally Threaded Inserts

| HIS-N  | ■  |
| HIS-RN  | ■  |

| HIT-IC  | with HIT-HY 370  |

### SafeSet Installation

- **HIT-Z, HIT-Z-R**: no bore hole cleaning required (above 5°C / 41°F, with HIT-HY 200)
- **HAS-V-36, HAS-E-55, HAS-B-105**: Installation with SafeSet technology, using suitable TE-CD or TE-YD hollow drill bits and Hilti vacuum cleaner
- **HAS-V-36 HDG, HAS-E-55 HDG, HAS-B-105 HDG**: Installation with SafeSet technology, using suitable TE-CD or TE-YD hollow drill bits and Hilti vacuum cleaner
- **HAS-R 304 SS, HAS-R 316 SS**: Installation with SafeSet technology, using suitable TE-CD or TE-YD hollow drill bits and Hilti vacuum cleaner

### Anchor Selector / Chemical – Rods & Elements

<table>
<thead>
<tr>
<th>For Use with</th>
<th>Material</th>
<th>Available thread sizes (● = off the shelf ○ = make to order, up to 144” in length)</th>
<th>SafeSet Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thread size</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
## Anchor Selector / Mechanical

### Anchor Material
- Carbon Steel
- Hot Dipped Galvanized
- Stainless Steel 304
- Stainless Steel 316

### Anchor Diameters
- Min.
- Max.

### ICC-ES Approvals or Hilti Technical Data
- Uncracked
- Cracked
- Seismic
- Concrete Over Metal Deck
- Grouted Masonry
- Hollow Masonry
- UL Listing
- FM Approval
- COLA/LABC/LARC1
- Miami-Dade
- LEED FBC HVHZ
- IBC

### Heavy Duty Anchors
- **HDA Undercut Anchor**
  - **Anchor Diameter:** M10, M20
  - **Approvals:** ESR-1546, ESR-1546, ESR-1546

- **HSL-3 Expansion Anchor**
  - **Anchor Diameter:** M8, M24
  - **Approvals:** ESR-1545, ESR-1545

### Expansion Anchors
- **KWIK Bolt-TZ**
  - **Anchor Diameter:** 3/8", 3/4"
  - **Approvals:** ESR-1917, ESR-1917, ESR-1917, ESR-3785

- **KWIK Bolt-VTZ**
  - **Anchor Diameter:** 3/8", 3/4"
  - **Approvals:** ESR-3904, ESR-3904, ESR-3904

- **KWIK Bolt 3**
  - **Anchor Diameter:** 1/4", 1"
  - **Approvals:** ESR-2302, ESR-2302

- **KWIK Bolt-V**
  - **Anchor Diameter:** 1/4", 3/4"

### Screw Anchors
- **KWIK HUS-EZ**
  - **Anchor Diameter:** 1/4", 3/4"
  - **Approvals:** ESR-3027, ESR-3027, ESR-3027, ESR-3056

- **KWIK HUS**
  - **Anchor Diameter:** 3/8", 3/4"

- **HUS-HR/CR**
  - **Anchor Diameter:** M6, M14

- **KWIK HUS-EZ I/E**
  - **Anchor Diameter:** 1/4", 1/2"

- **KWIK HUS-EZ P**
  - **Anchor Diameter:** 1/4", 1/4"

### Flush Anchors
- **HDI/ HDI+/ HDI-L+**
  - **Anchor Diameter:** 1/4", 3/4"

- **HDI-P**
  - **Anchor Diameter:** 1/4", 1/2"

- **HDI-P TZ**
  - **Anchor Diameter:** 3/8", 3/8"

### Cast-In Anchors
- **KCS-WF/KCM-WF/KCM-PD**
  - **Anchor Diameter:** 1/4", 3/4"
  - **Approvals:** ESR-4006, ESR-4006, ESR-4006

- **KWIK CAST KCM-MD**
  - **Anchor Diameter:** 1/4", 3/4"

### Light Duty Anchors
- **HLC**
  - **Anchor Diameter:** 1/4", 3/4"

- **KWIK-CON II+**
  - **Anchor Diameter:** 1/8", 1/4"