Achieving more with less

Our commitment to leadership in sustainability is deeply embedded in our values. With our revised Sustainability Strategy for 2030, we are building on our strong track record. At the same time, we are aiming to address one of the central future challenges: to decouple growth from resource consumption. At the heart of this strategy is therefore the simple, yet challenging, ambition: to achieve more with less. It aims to create more value for our customers, consumers, communities and the company alike, while simultaneously reducing the environmental footprint.
We are the most trusted provider of adhesives, sealants and functional coatings assembling the world’s largest agricultural and construction machinery manufacturers.
INTRODUCTION
For decades, agricultural and construction machinery manufacturers have used Henkel adhesive, sealant and functional coatings technologies to improve end-user product performance, reduce production costs, and create more efficient manufacturing processes. Their superior performance and wide reaching benefits can be successfully translated into the Agricultural and Construction Machinery Industry.

This guide provides design, manufacturing and quality engineers with the knowledge to properly qualify Henkel adhesive, sealant and functional coatings technologies for Agricultural and Construction Machinery applications.

▶ Machinery & Part

▶ Machinery
  - Tractor
  - Loader
  - Excavator
  - Combine Harvester

▶ Part
  - Cabin
  - Engine
  - Axle – Transmission – Gearbox
  - Hydraulic Cylinder
  - Fuel Tank

▶ Henkel Applications & Solutions

▶ Threadlocking
  Prevent fastener loosening and seizure

▶ Thread Sealing
  Prevent leaks – air, hydraulic

▶ Retaining
  Prevent backlash – keyway wallow, wheel bearings, wear, corrosion

▶ Flange Sealing (Anaerobic)
  Seal close fitting joints between rigid metal faces and flanges

▶ Flange Sealing (Silicone)
  Retain flexibility and oil resistance for longer gasket life

▶ Seam Sealing
  Seal against polyurethane, rubber, modified silicone polymer or acrylic dispersions

▶ Anti-Spatter (Ceramishield)
  Prevent spatter adhesion on welding equipment, jigs and surfaces

▶ Window Glazing (DGX)
  Secure windows to the metal frames

▶ Instant Bonding
  Bond dissimilar parts quickly and easily

▶ Metal Bonding
  Provide tough, long-lasting bonds to metal surfaces

▶ Anti-Seize
  Protect metal parts from corrosion, galling and seizure

▶ Noise, Vibration and Harshness (NVH)
  Reduce vibration, insulate and absorb sound

▶ Functional Coatings
  Include coatings, surface treatment and cleaners
<table>
<thead>
<tr>
<th>LOCATIONS</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEAM SEALING</strong></td>
<td>Cabin</td>
</tr>
<tr>
<td>• High temperature resistance</td>
<td></td>
</tr>
<tr>
<td>• Good durability</td>
<td></td>
</tr>
<tr>
<td>• Diversified cure condition</td>
<td></td>
</tr>
<tr>
<td><strong>WINDOW GLAZING</strong> (DGX)</td>
<td>Cabin</td>
</tr>
<tr>
<td>• High position tack</td>
<td></td>
</tr>
<tr>
<td>• Fast cure</td>
<td></td>
</tr>
<tr>
<td>• Primerless</td>
<td></td>
</tr>
<tr>
<td><strong>NOISE, VIBRATION AND HARSHNESS (NVH)</strong></td>
<td>Cabin (sound package)</td>
</tr>
<tr>
<td>• Total solution to reduce exterior noise / cabin noise</td>
<td></td>
</tr>
<tr>
<td>• Full engineering service</td>
<td></td>
</tr>
<tr>
<td>• High performance acoustic material</td>
<td></td>
</tr>
<tr>
<td><strong>THREAD SEALING</strong></td>
<td>Engine</td>
</tr>
<tr>
<td>• Good oil resistance</td>
<td></td>
</tr>
<tr>
<td>• High temperature resistance</td>
<td></td>
</tr>
<tr>
<td>• Various viscosity</td>
<td></td>
</tr>
<tr>
<td><strong>THREADLOCKING</strong></td>
<td>Various mounting assembly</td>
</tr>
<tr>
<td>• Controllable strength</td>
<td></td>
</tr>
<tr>
<td>• Applicable on inactive surface</td>
<td></td>
</tr>
<tr>
<td>• High temperature resistance</td>
<td></td>
</tr>
<tr>
<td><strong>FUNCTIONAL COATINGS</strong></td>
<td>Thin sheet &amp; structural &amp; component part</td>
</tr>
<tr>
<td>• Environment friendly</td>
<td></td>
</tr>
<tr>
<td>• Good performance with painting</td>
<td></td>
</tr>
<tr>
<td>• Simple processing and control</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LOCATIONS</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>METAL BONDING</strong></td>
<td>Cabin</td>
</tr>
<tr>
<td>• High crash resistance</td>
<td></td>
</tr>
<tr>
<td>• High bonding strength</td>
<td></td>
</tr>
<tr>
<td>• Good durability</td>
<td></td>
</tr>
<tr>
<td><strong>PLASTIC BONDING</strong></td>
<td>Cabin</td>
</tr>
<tr>
<td>• Instant bonding</td>
<td></td>
</tr>
<tr>
<td>• Tough bonding</td>
<td></td>
</tr>
<tr>
<td>• Easy application</td>
<td></td>
</tr>
<tr>
<td><strong>ANTI-SPATTER (CERAMISHIELD)</strong></td>
<td>Engine</td>
</tr>
<tr>
<td>• Less down time</td>
<td></td>
</tr>
<tr>
<td>• Easy application</td>
<td></td>
</tr>
<tr>
<td>• Automatic production</td>
<td></td>
</tr>
<tr>
<td><strong>ANTI-SEIZE</strong></td>
<td>Engine</td>
</tr>
<tr>
<td>• High lubricity</td>
<td></td>
</tr>
<tr>
<td>• High temperature resistance</td>
<td></td>
</tr>
<tr>
<td>• Good chemical resistance</td>
<td></td>
</tr>
<tr>
<td><strong>RETAINING</strong></td>
<td>Engine</td>
</tr>
<tr>
<td>• High strength</td>
<td></td>
</tr>
<tr>
<td>• Good oil resistance</td>
<td></td>
</tr>
<tr>
<td>• High temperature resistance</td>
<td></td>
</tr>
<tr>
<td><strong>FLANGE SEALING</strong></td>
<td>Engine</td>
</tr>
<tr>
<td>• Good oil tolerance</td>
<td></td>
</tr>
<tr>
<td>• High flexibility</td>
<td></td>
</tr>
<tr>
<td>• Good blow out resistance</td>
<td></td>
</tr>
</tbody>
</table>
LOADER

Agricultural and Construction Machinery Solutions Guide | 7

MACHINERY

LOCATIONS | BENEFITS
--- | ---
SEAM SEALING 1 Cabin | • High temperature resistance  
• Good durability  
• Diversified cure condition
WINDOW GLAZING (DGX) 1 Cabin | • High position tack  
• Fast cure  
• Primerless
NOISE, VIBRATION AND HARSHNESS (NVH) 1 Cabin (sound package) 2 Engine hood (acoustic treatment) | • Total solution to reduce exterior noise / cabin noise  
• Full engineering service  
• High performance acoustic material
THREADED SEALING 1 Cabin 2 Engine 3 Transmission 4 Hydraulic cylinder | • Good oil resistance  
• High temperature resistance  
• Various viscosity
THREADED LOCKING 1 Cabin 2 Engine 3 Transmission 4 Hydraulic cylinder 5 Various mounting assembly | • Controllable strength  
• Applicable on inactive surface  
• High temperature resistance
FUNCTIONAL COATINGS 1 Whole metal surface 2 Thin sheet & structural & component part | • Environment friendly  
• Good performance with painting  
• Simple processing and control
METAL BONDING 1 Cabin | • High crash resistance  
• High bonding strength  
• Good durability
PLASTIC BONDING 1 Cabin | • Instant bonding  
• Tough bonding  
• Easy application
ANTI-SPATTER (CERAMISHIELD) 1 Cabin | • Less down time  
• Easy application  
• Automatic production
ANTI-SEIZE 1 Engine 2 Transmission | • High lubricity  
• High temperature resistance  
• Good chemical resistance
RETAINING 1 Engine 2 Transmission | • High strength  
• Good oil resistance  
• High temperature resistance
FLANGE SEALING 1 Engine 2 Transmission | • Good oil tolerance  
• High flexibility  
• Good blow out resistance
# EXCAVATOR

## Locations & Benefits

### Seam Sealing
- **Locations**: Cabin, Engine, Final drive, Hydraulic cylinder, Slewing bearing, Various mounting assembly
- **Benefits**:
  - High temperature resistance
  - Good durability
  - Diversified cure condition

### Window Glazing (DGX)
- **Locations**: Cabin
- **Benefits**:
  - High position tack
  - Fast cure
  - Primerless

### Noise, Vibration and Harshness (NVH)
- **Locations**: Cabin (sound package), Engine hood (acoustic treatment)
- **Benefits**:
  - Total solution to reduce exterior noise / cabin noise
  - Full engineering service
  - High performance acoustic material

### Thread Sealing
- **Locations**: Cabin, Engine, Final drive, Hydraulic cylinder
- **Benefits**:
  - Good oil resistance
  - High temperature resistance
  - Various viscosity

### Threadlocking
- **Locations**: Cabin, Engine, Final drive, Hydraulic cylinder, Slewing bearing, Various mounting assembly
- **Benefits**:
  - Controllable strength
  - Applicable on inactive surface
  - High temperature resistance

### Functional Coatings
- **Locations**: Thin sheet & structural & component part
- **Benefits**:
  - Environment friendly
  - Good performance with painting
  - Simple processing and control

### Metal Bonding
- **Locations**: Cabin
- **Benefits**:
  - High crash resistance
  - High bonding strength
  - Good durability

### Plastic Bonding
- **Locations**: Cabin
- **Benefits**:
  - Instant bonding
  - Tough bonding
  - Easy application

### Anti-Spatter (Ceramishield)
- **Locations**: Cabin
- **Benefits**:
  - Less down time
  - Easy application
  - Automatic production

### Anti-Seize
- **Locations**: Engine, Final drive
- **Benefits**:
  - High lubricity
  - High temperature resistance
  - Good chemical resistance

### Retaining
- **Locations**: Engine, Final drive
- **Benefits**:
  - High strength
  - Good oil resistance
  - High temperature resistance

### Flange Sealing
- **Locations**: Engine, Final drive, Slewing bearing
- **Benefits**:
  - Good oil tolerance
  - High flexibility
  - Good blow out resistance
## COMBINE HARVESTER

### Locations Benefits

| Seams Sealing | Cabin | - High temperature resistance  
| |  | - Good durability  
| |  | - Diversified cure condition  
| Window Glazing (DGX) | Cabin | - High position tack  
| |  | - Fast cure  
| |  | - Primerless  
| Noise, Vibration and Harshness (NVH) | Cabin | - Total solution to reduce exterior noise / cabin noise  
| |  | - Full engineering service  
| |  | - High performance acoustic material  
| Thread Sealing | Cabin  
| |  | - Good oil resistance  
| |  | - High temperature resistance  
| |  | - Various viscosity  
| Threadlocking | Cabin  
| |  | - Controllable strength  
| |  | - Applicable on inactive surface  
| |  | - High temperature resistance  
| Functional Coatings | Thin sheet & structural & component part | - Environment friendly  
| |  | - Good performance with painting  
| |  | - Simple processing and control  
| Metal Bonding | Cabin | - High crash resistance  
| |  | - High bonding strength  
| |  | - Good durability  
| Plastic Bonding | Cabin | - Instant bonding  
| |  | - Tough bonding  
| |  | - Easy application  
| Anti-spatter (Ceramishield) | Cabin | - Less down time  
| |  | - Easy application  
| |  | - Automatic production  
| Anti-Seize | Engine  
| |  | - High lubricity  
| |  | - High temperature resistance  
| |  | - Good chemical resistance  
| Retaining | Engine  
| |  | - High strength  
| |  | - Good oil resistance  
| |  | - High temperature resistance  
| Flange Sealing | Engine  
| |  | - Good oil tolerance  
| |  | - High flexibility  
| |  | - Good blow out resistance  

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**Agricultural and Construction Machinery Solutions Guide | 9**
ENGINE / FRONT

**LOCATIONS**

1. Intake manifold bolts
2. Connecting rod cap bolts
3. Flywheel bolts
   - Harmonic balance bolts
   - Clutch fan bolt
4. Diesel injector bolt
5. Pulley assembly
6. Cylinder head bolts
   - Pre-assembled bolts on alternators
   - and air conditioning belts

**BENEFITS**

- Controllable strength
- Applicable on inactive surface
- High temperature resistance

**THREAD SEALING**

7. Threaded core plugs
8. Oil and coolant lines
9. Fuel line sealing
   - Hydraulic line fittings
   - Threaded water pump fittings
   - Water pump bolt threads

- Good oil resistance
- High temperature resistance
- Various viscosity

**FUNCTIONAL COATINGS**

- Whole metal surface

- Long antirust time
- Simple processing and control
- Good cleaner ability
# ENGINE / BACK

<table>
<thead>
<tr>
<th>LOCATIONS</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RETAINING</strong></td>
<td></td>
</tr>
<tr>
<td><strong>FLANGE SEALING</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ANTI-SEIZE</strong></td>
<td></td>
</tr>
</tbody>
</table>
CABIN

**SEAM SEALING**
- Interior welding
- Window glass to frame
  - High temperature resistance
  - Good durability
  - Diversified cure condition

**WINDOW GLAZING (DGX)**
- Window Shield
  - High position tack
  - Fast cure
  - Primerless

**NOISE, VIBRATION AND HARSHNESS (NVH)**
- Cabin (noise and vibration reduction)
  - Total solution to reduce exterior noise / cabin noise
  - Full engineering service
  - High performance acoustic material

**FUNCTIONAL COATINGS**
- Whole metal surface
- Thin sheet & structural & component part
  - Environment friendly
  - Good performance with painting
  - Simple processing and control

**THREAD SEALING**
- Fluid line connectors
  - Good oil resistance
  - High temperature resistance
  - Various viscosity

**THREADLOCKING**
- Hood mounting bolts
  - Mounting screws
  - Seat hardware
  - Controllable strength
  - Applicable on inactive surface
  - High temperature resistance

**METAL BONDING**
- Body panels to frame
  - Hood to cab
  - Light bracket
  - Seat mounting brackets
  - High crash resistance
  - High bonding strength
  - Good durability

**PLASTIC BONDING**
- Control knobs / levers / buttons
  - Instant bonding
  - Tough bonding
  - Easy application

**ANTI-SPATTER (CERAMISHIELD)**
- Cabin frame welding
  - Less down time
  - Easy application
  - Automatic production
# AXLE-TRANSMISSION -GEAR BOX

<table>
<thead>
<tr>
<th>LOCATIONS</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>THREADLOCKING</strong></td>
<td></td>
</tr>
<tr>
<td>1 Transmission case cover bolts</td>
<td>• Controllable strength</td>
</tr>
<tr>
<td>2 Ring gear</td>
<td>• Applicable on inactive surface</td>
</tr>
<tr>
<td>3 Bearing caps</td>
<td>• High temperature resistance</td>
</tr>
<tr>
<td>4 Drive shaft</td>
<td>• Threading locking</td>
</tr>
<tr>
<td>5 Transaxle detent screw</td>
<td></td>
</tr>
<tr>
<td><strong>ANTI-SEIZE</strong></td>
<td></td>
</tr>
<tr>
<td>7 Brake shoe slides</td>
<td>• High lubricity</td>
</tr>
<tr>
<td>8 Drum brake hardware</td>
<td>• High temperature resistance</td>
</tr>
<tr>
<td>9 Ideal for high contact pressure applications</td>
<td>• Good chemical resistance</td>
</tr>
<tr>
<td><strong>RETAINING</strong></td>
<td></td>
</tr>
<tr>
<td>11 Input shaft seal</td>
<td>• High strength</td>
</tr>
<tr>
<td>12 Axle studs</td>
<td>• Good oil resistance</td>
</tr>
<tr>
<td>13 Bolt on final drive</td>
<td>• High temperature resistance</td>
</tr>
<tr>
<td>14 Keyways and splines</td>
<td></td>
</tr>
<tr>
<td>15 Ball, roller and needle bearings</td>
<td></td>
</tr>
<tr>
<td>16 Wheel bearings</td>
<td></td>
</tr>
<tr>
<td>17 Press fit bearings</td>
<td></td>
</tr>
<tr>
<td><strong>FUNCTIONAL COATINGS</strong></td>
<td></td>
</tr>
<tr>
<td>5 Thin sheet &amp; structural &amp; component part</td>
<td>• Environment friendly</td>
</tr>
<tr>
<td>6 Good performance with painting</td>
<td>• Simple processing and control</td>
</tr>
<tr>
<td><strong>FLANGE SEALING</strong></td>
<td></td>
</tr>
<tr>
<td>1 Heavy die cut gasket</td>
<td>• Good oil tolerance</td>
</tr>
<tr>
<td>2 Gearbox covers</td>
<td>• High flexibility</td>
</tr>
<tr>
<td>3 Transaxle casings</td>
<td>• Good blow out resistance</td>
</tr>
<tr>
<td>4 Differential cover</td>
<td></td>
</tr>
<tr>
<td>5 High torque applications</td>
<td></td>
</tr>
</tbody>
</table>
# Hydraulic Cylinder

## Locations

<table>
<thead>
<tr>
<th>Locations</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Thin sheet & structural & component part | Environment friendly  
|                    | Good performance with painting  
|                    | Simple processing and control |
| Hydraulic line fittings | Good oil resistance  
|                    | High temperature resistance  
|                    | Various viscosity |
| Cylinder block bolts | Controllable strength  
|                    | Applicable on inactive surface  
|                    | High temperature resistance |
# FUEL TANK

## Functional Coatings

<table>
<thead>
<tr>
<th>Locations</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Thin sheet & structural & component part | - Environment friendly  
- Good performance with painting  
- Simple processing and control |

## Anti-Spatter (Ceramishield)

<table>
<thead>
<tr>
<th>Locations</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| Fuel pan welding | - Less down time  
- Easy application  
- Automatic production |
# PRODUCT SELECTOR CHART

## Threadlocking
Prevent fastener loosening and seizure

<table>
<thead>
<tr>
<th>Product IDh no.</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Average Prevail Torque (N.m)</th>
<th>Average Breakaway Torque (N.m)</th>
<th>Curing Speed (Initial Cure / Full Cure)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 204</td>
<td>243334</td>
<td>20kg</td>
<td>Pink</td>
<td>75,000 - 100,000</td>
<td>25</td>
<td>25</td>
<td>10min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 222</td>
<td>144495</td>
<td>133135</td>
<td>Purple</td>
<td>1,200 - 5,000</td>
<td>304</td>
<td>6</td>
<td>20min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 243</td>
<td>133868</td>
<td>132925</td>
<td>Blue</td>
<td>1,300 - 3,000</td>
<td>5</td>
<td>26</td>
<td>10min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 263</td>
<td>130716</td>
<td>130736</td>
<td>Red</td>
<td>400 - 600</td>
<td>33</td>
<td>33</td>
<td>5min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 2701</td>
<td>192725</td>
<td>144917</td>
<td>Purple</td>
<td>1,200 - 5,000</td>
<td>304</td>
<td>6</td>
<td>20min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 273</td>
<td>195543</td>
<td>190519</td>
<td>Green</td>
<td>700</td>
<td>15</td>
<td>26 - 50</td>
<td>25min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 277</td>
<td>229983</td>
<td>130409</td>
<td>Red</td>
<td>7,000</td>
<td>25</td>
<td>23</td>
<td>60min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 287</td>
<td>158095</td>
<td>157907</td>
<td>Blue</td>
<td>N / A</td>
<td>N / A</td>
<td>13 - 22</td>
<td>5min / 24h</td>
</tr>
<tr>
<td>LOCTITE® 297</td>
<td>196036</td>
<td>157717</td>
<td>Red</td>
<td>N / A</td>
<td>N / A</td>
<td>25 - 50</td>
<td>5min / 24h</td>
</tr>
</tbody>
</table>

## Thread Sealing
Prevent leaks – air, hydraulic

<table>
<thead>
<tr>
<th>Product IDh no.</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Pressure Resistance (MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 542</td>
<td>234455</td>
<td>234456</td>
<td>Brown</td>
<td>400 - 800</td>
<td>6</td>
</tr>
<tr>
<td>LOCTITE® 545</td>
<td>195872</td>
<td>157775</td>
<td>Purple</td>
<td>9,000 - 20,000</td>
<td>6</td>
</tr>
<tr>
<td>LOCTITE® 555</td>
<td>88553</td>
<td>440159</td>
<td>White</td>
<td>175,000 - 345,000</td>
<td>21</td>
</tr>
<tr>
<td>LOCTITE® 559</td>
<td>234458</td>
<td>234457</td>
<td>Brown</td>
<td>280,000 - 800,000</td>
<td>9</td>
</tr>
<tr>
<td>LOCTITE® 569</td>
<td>200603</td>
<td>234457</td>
<td>Purple</td>
<td>9,000 - 20,000</td>
<td>6</td>
</tr>
<tr>
<td>LOCTITE® 577</td>
<td>88554</td>
<td>234453</td>
<td>Yellow</td>
<td>70,000 - 130,000</td>
<td>9</td>
</tr>
<tr>
<td>LOCTITE® 592</td>
<td>147805</td>
<td>230155</td>
<td>White</td>
<td>200,000 - 500,000</td>
<td>9</td>
</tr>
<tr>
<td>LOCTITE® 591</td>
<td>455873</td>
<td>243428</td>
<td>White</td>
<td>N / A</td>
<td>6</td>
</tr>
</tbody>
</table>
### Threadlocking
**Product Selector Chart**

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 271</td>
<td>500ml</td>
<td>Female-to-female thread alignment</td>
<td>White</td>
<td>170 - 700</td>
<td>80</td>
<td>125</td>
</tr>
<tr>
<td>LOCTITE® 272</td>
<td>250ml</td>
<td>Female-to-female thread alignment</td>
<td>White</td>
<td>170 - 700</td>
<td>80</td>
<td>125</td>
</tr>
<tr>
<td>LOCTITE® 273</td>
<td>100ml</td>
<td>Female-to-female thread alignment</td>
<td>White</td>
<td>170 - 700</td>
<td>80</td>
<td>125</td>
</tr>
<tr>
<td>LOCTITE® 274</td>
<td>50ml</td>
<td>Female-to-female thread alignment</td>
<td>White</td>
<td>170 - 700</td>
<td>80</td>
<td>125</td>
</tr>
</tbody>
</table>

### Retaining

**Thread Sealing**
- Use in threaded, mating assemblies, axles, bearings, wear, corrosion

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 592</td>
<td>100g</td>
<td>High-strength retention</td>
<td>White</td>
<td>500 - 600</td>
<td>20</td>
<td>125</td>
</tr>
<tr>
<td>LOCTITE® 593</td>
<td>250ml</td>
<td>High-strength retention</td>
<td>White</td>
<td>500 - 600</td>
<td>20</td>
<td>125</td>
</tr>
<tr>
<td>LOCTITE® 594</td>
<td>1L</td>
<td>High-strength retention</td>
<td>White</td>
<td>500 - 600</td>
<td>20</td>
<td>125</td>
</tr>
</tbody>
</table>

### Flange Sealing (Silicone)

**Seam Sealing**
- Use in applied polyurethane, calamond, modified silicone polymer on coated aluminum

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 926</td>
<td>300ml</td>
<td>Seam sealing</td>
<td>White</td>
<td>100 - 200</td>
<td>15</td>
<td>200</td>
</tr>
<tr>
<td>LOCTITE® 927</td>
<td>300ml</td>
<td>Seam sealing</td>
<td>White</td>
<td>100 - 200</td>
<td>15</td>
<td>200</td>
</tr>
<tr>
<td>LOCTITE® 928</td>
<td>300ml</td>
<td>Seam sealing</td>
<td>White</td>
<td>100 - 200</td>
<td>15</td>
<td>200</td>
</tr>
</tbody>
</table>

### Anti-Spatter (Ceramishield)

**Thread Locking**
- Use in female-to-female thread alignment

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 5989B</td>
<td>388g</td>
<td>Anti-splatter</td>
<td>Black</td>
<td>8 - 20</td>
<td>15</td>
<td>200</td>
</tr>
<tr>
<td>LOCTITE® 5902</td>
<td>20kg</td>
<td>Anti-splatter</td>
<td>Black</td>
<td>8 - 20</td>
<td>15</td>
<td>200</td>
</tr>
<tr>
<td>LOCTITE® 5910</td>
<td>300ml</td>
<td>Anti-splatter</td>
<td>Black</td>
<td>8 - 20</td>
<td>15</td>
<td>200</td>
</tr>
</tbody>
</table>

### Seam Sealing

**Thread Locking**
- Use in female-to-female thread alignment

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
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</thead>
<tbody>
<tr>
<td>LOCTITE® 5016</td>
<td>310ml</td>
<td>Seal</td>
<td>White</td>
<td>N/A</td>
<td>1</td>
<td>200</td>
</tr>
<tr>
<td>TEROSON® EP-234H</td>
<td>400g</td>
<td>White</td>
<td>N/A</td>
<td>1.5</td>
<td>≥150</td>
<td></td>
</tr>
<tr>
<td>TEROSON® MS 9399</td>
<td>400ml</td>
<td>White, grey, black</td>
<td>60</td>
<td>N/A</td>
<td>2</td>
<td>150</td>
</tr>
<tr>
<td>TEROSON® RB1244 BX-25</td>
<td>310ml</td>
<td>Black</td>
<td>40 - 60</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TEROSON® PV 3046</td>
<td>250kg</td>
<td>Light ivory</td>
<td>60</td>
<td>N/A</td>
<td>2.4</td>
<td>180</td>
</tr>
<tr>
<td>TEROSON® MS 9360</td>
<td>310ml</td>
<td>Black</td>
<td>50</td>
<td>3</td>
<td>3.5</td>
<td>200</td>
</tr>
<tr>
<td>TEROSON® MS 939</td>
<td>310ml</td>
<td>Black</td>
<td>55</td>
<td>3</td>
<td>3</td>
<td>250</td>
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</tbody>
</table>

### Anti-Spatter (Ceramishield)

**Thread Locking**
- Use in female-to-female thread alignment

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
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</thead>
<tbody>
<tr>
<td>LOCTITE® LW-1</td>
<td>400ml</td>
<td>Solvent based, manual application</td>
<td>Translucent liquid</td>
<td>White</td>
<td>N/A</td>
<td>yes</td>
</tr>
<tr>
<td>TEROS® 1238883</td>
<td>400ml</td>
<td>White emulsion</td>
<td>White</td>
<td>100 - 250</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>TEROS® 356824</td>
<td>400g</td>
<td>White</td>
<td>N/A</td>
<td>1.5</td>
<td>≥150</td>
<td></td>
</tr>
<tr>
<td>TEROS® 964329</td>
<td>400ml</td>
<td>White, grey, black</td>
<td>60</td>
<td>N/A</td>
<td>2</td>
<td>150</td>
</tr>
<tr>
<td>TEROS® 813971</td>
<td>310ml</td>
<td>Black</td>
<td>40 - 60</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TEROS® 1532726</td>
<td>250kg</td>
<td>Light ivory</td>
<td>60</td>
<td>N/A</td>
<td>2.4</td>
<td>180</td>
</tr>
<tr>
<td>TEROS® 1480729</td>
<td>310ml</td>
<td>White, grey, black</td>
<td>55</td>
<td>3</td>
<td>3</td>
<td>250</td>
</tr>
</tbody>
</table>

### Seam Sealing

**Thread Locking**
- Use in female-to-female thread alignment

<table>
<thead>
<tr>
<th>Product ID</th>
<th>Package Size</th>
<th>Typical Application</th>
<th>Color</th>
<th>Viscosity (mPa.s)</th>
<th>Cure Time (min)</th>
<th>Strength (N.mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCTITE® 587</td>
<td>576854</td>
<td>Seal</td>
<td>Black</td>
<td>≤40</td>
<td>≥400</td>
<td>≥1.4</td>
</tr>
<tr>
<td>LOCTITE® 5900</td>
<td>585104</td>
<td>Good blow out resistance</td>
<td>Black</td>
<td>7 - 24</td>
<td>≥400</td>
<td>≥1.4</td>
</tr>
<tr>
<td>LOCTITE® 5020</td>
<td>295291</td>
<td>Low viscosity, low odor</td>
<td>Grey</td>
<td>≤60</td>
<td>D25</td>
<td>≥1.1</td>
</tr>
<tr>
<td>LOCTITE® LW-1</td>
<td>400ml</td>
<td>Solvent based, manual application</td>
<td>Translucent liquid</td>
<td>White</td>
<td>N/A</td>
<td>yes</td>
</tr>
<tr>
<td>TEROS® 123883</td>
<td>400ml</td>
<td>White emulsion</td>
<td>White</td>
<td>100 - 250</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>TEROS® 356824</td>
<td>400g</td>
<td>White</td>
<td>N/A</td>
<td>1.5</td>
<td>≥150</td>
<td></td>
</tr>
<tr>
<td>TEROS® 964329</td>
<td>400ml</td>
<td>White, grey, black</td>
<td>60</td>
<td>N/A</td>
<td>2</td>
<td>150</td>
</tr>
<tr>
<td>TEROS® 813971</td>
<td>310ml</td>
<td>Black</td>
<td>40 - 60</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>TEROS® 1532726</td>
<td>250kg</td>
<td>Light ivory</td>
<td>60</td>
<td>N/A</td>
<td>2.4</td>
<td>180</td>
</tr>
<tr>
<td>TEROS® 1480729</td>
<td>310ml</td>
<td>White, grey, black</td>
<td>55</td>
<td>3</td>
<td>3</td>
<td>250</td>
</tr>
</tbody>
</table>
## Agricultural and Construction Machinery Solutions Guide

### LOCTITE® H8600 827562 50ml 2C, excellent impact and peel
- **Product ID**: 827562
- **Package**: 50ml
- **Type**: 2C
- **Features**: Excellent impact and peel resistance

### TEROSON® EP 5089 1579071 310ml 2C, high crash resistant
- **Product ID**: 1579071
- **Package**: 310ml
- **Type**: 2C
- **Features**: High crash resistant and Purple EVA-based

### LOCTITE® H8600 827562 50ml 2C, excellent impact and peel
- **Product ID**: 827562
- **Package**: 50ml
- **Type**: 2C
- **Features**: Excellent impact and peel resistance

### TEROSON® 8590 149996
- **Product ID**: 149996
- **Package**: 
- **Type**: 
- **Features**:  

### Metal Bonding
- Bond metal parts in seconds: joining, bonding and sealing

### Instant Bonding
- Bond dissimilar parts quickly and easily

### Anti-Seize
- Protect metal parts from corrosion, galling and seizure

### Window Glazing (DGX)
- Bond, seal and protect glass and mirror

### Noise, Vibration and Harshness (NVH)
- Reduce noise, vibration and harshness

### Functional Coatings
- Executive gloss, superior wear resistance and high UV resistance

### Product Selector Chart

#### Category: Window Glazing (DGX)
- Bond, seal and protect glass and mirror

#### Category: Anti-Seize
- Protect metal parts from corrosion, galling and seizure

#### Category: Metal Bonding
- Bond metal parts in seconds: joining, bonding and sealing

#### Category: Instant Bonding
- Bond dissimilar parts quickly and easily

#### Category: Noise, Vibration and Harshness (NVH)
- Reduce noise, vibration and harshness

#### Category: Functional Coatings
- Executive gloss, superior wear resistance and high UV resistance
## Functional Coatings

Include coatings, surface treatment and cleaners

<table>
<thead>
<tr>
<th>Category</th>
<th>Product</th>
<th>IDH No.</th>
<th>Package</th>
<th>Chemistry</th>
<th>Time (min.)</th>
<th>Temperature</th>
<th>Concentration (%)</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coatings</td>
<td>BONDERITE® M-PP series</td>
<td>107348 101546 1015531</td>
<td>30kg</td>
<td>Paint</td>
<td>1 - 2</td>
<td>Room temperature</td>
<td>10 - 20</td>
<td>- Displace E-coating - Good cost performance</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-PP series</td>
<td>61023 619296</td>
<td>30kg</td>
<td>Zinc phosphate</td>
<td>2 - 5</td>
<td>43 - 50°C</td>
<td>4 - 7</td>
<td>- Best corrosion protection - Polycrystalline surface coating</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-PP series</td>
<td>610544 610545</td>
<td>35kg</td>
<td>Zinc phosphate</td>
<td>2 - 5</td>
<td>Room temperature</td>
<td>4 - 7</td>
<td>- Heavy coating weight - Room temperature</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-PP series</td>
<td>848805 848806</td>
<td>25kg</td>
<td>Iron phosphate</td>
<td>1 - 5</td>
<td>43 - 66°C</td>
<td>4 - 7</td>
<td>- Degreasing &amp; phosphating 2 in 1 - Control easily</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-PP series</td>
<td>697212</td>
<td>30kg</td>
<td>Iron phosphate</td>
<td>1 - 5</td>
<td>Room temperature</td>
<td>4 - 7</td>
<td>- Degreasing &amp; phosphating 2 in 1 - Room Temperature</td>
</tr>
<tr>
<td>Traditional Phosphating of Painting Pretreatment</td>
<td>BONDERITE® M-ZN 958</td>
<td>619121 619123</td>
<td>30kg</td>
<td>Zinc phosphate</td>
<td>2 - 5</td>
<td>43 - 50°C</td>
<td>4 - 7</td>
<td>- Best corrosion protection - Polycrystalline surface coating</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-ZN 35 CR</td>
<td>670344 670345</td>
<td>35kg</td>
<td>Zinc phosphate</td>
<td>2 - 5</td>
<td>Room temperature</td>
<td>4 - 7</td>
<td>- Heavy coating weight - Room temperature</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-ZN 958</td>
<td>848805 848806</td>
<td>25kg</td>
<td>Iron phosphate</td>
<td>1 - 5</td>
<td>43 - 66°C</td>
<td>4 - 7</td>
<td>- Degreasing &amp; phosphating 2 in 1 - Control easily</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-ZN 35 CR</td>
<td>697212</td>
<td>30kg</td>
<td>Iron phosphate</td>
<td>1 - 5</td>
<td>Room temperature</td>
<td>4 - 7</td>
<td>- Degreasing &amp; phosphating 2 in 1 - Room Temperature</td>
</tr>
<tr>
<td>New Generation Coating of Painting Pretreatment</td>
<td>BONDERITE® M-NT NT-1</td>
<td>1076335</td>
<td>25kg</td>
<td>Phosphate free</td>
<td>1 - 5</td>
<td>Room temperature</td>
<td>2 - 7</td>
<td>- Environment friendly - Control easily</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-NT NT 1050</td>
<td>1830411</td>
<td>25kg</td>
<td>Phosphate free</td>
<td>1 - 5</td>
<td>Room temperature</td>
<td>1 - 3</td>
<td>- Good corrosion protection - Control easily</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® M-NT NT 1053</td>
<td>1268453 1268456 1711581 1711582</td>
<td>25kg</td>
<td>Phosphate free</td>
<td>1 - 5</td>
<td>Room temperature</td>
<td>1 - 3</td>
<td>- Environment friendly - Good performance with E-coat</td>
</tr>
<tr>
<td>Cleaner &amp; Antirust</td>
<td>BONDERITE® C-NE N</td>
<td>1618892</td>
<td>25kg</td>
<td>Neutral cleaner</td>
<td>Derust</td>
<td>Ferrous only</td>
<td>2 - 10</td>
<td>- Neutral - No damage to workpiece</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-NE 51</td>
<td>619228</td>
<td>25kg</td>
<td>Neutral cleaner</td>
<td>Antirust</td>
<td>Ferrous only</td>
<td>0.1 - 0.3</td>
<td>- Temporary antirust</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-NE 508B</td>
<td>619106</td>
<td>25kg</td>
<td>Neutral cleaner</td>
<td>Cleaning</td>
<td>All</td>
<td>1 - 3</td>
<td>- Clean &amp; antirust 2 in 1 - Good cleaning performance</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-NE 750</td>
<td>619035</td>
<td>25kg</td>
<td>Neutral cleaner</td>
<td>Antirust</td>
<td>All</td>
<td>1 - 3</td>
<td>- Clean &amp; antirust 2 in 1 - Good antirust performance</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-NE 668B</td>
<td>619187</td>
<td>25kg</td>
<td>Neutral cleaner</td>
<td>Antirust</td>
<td>All</td>
<td>4 - 10</td>
<td>- Clean &amp; antirust 2 in 1 - Best antirust performance</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-AK 930</td>
<td>1470307</td>
<td>22kg</td>
<td>Alkaline stripper</td>
<td>Stripper</td>
<td>Ferrous only</td>
<td>10 - 100</td>
<td>- Alkaline stripper for remanufacturing</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-AK RM 21</td>
<td>1924245</td>
<td>25kg</td>
<td>Alkaline cleaner</td>
<td>Cleaning &amp; rust removing</td>
<td>Ferrous only</td>
<td>15 - 100</td>
<td>- Alkaline cleaner &amp; desalter for remanufacturing</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-AK 153</td>
<td>410551 410552</td>
<td>30kg</td>
<td>Alkaline cleaner</td>
<td>Cleaning</td>
<td>Ferrous only</td>
<td>1 - 5</td>
<td>- Best cleaning performance</td>
</tr>
<tr>
<td></td>
<td>BONDERITE® C-AK 1022</td>
<td>158488 102343</td>
<td>30kg</td>
<td>Alkaline cleaner</td>
<td>Cleaning</td>
<td>Ferrous only</td>
<td>1 - 5</td>
<td>- Environment friendly - Good cleaning performance</td>
</tr>
</tbody>
</table>
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