



# HM-300-400T: The High-Temperature Hero Your Machinery Deserves

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### When Friction Meets Fire: The 400°C Challenge

your industrial oven chain conveyor starts squealing like a banshee at 3AM, because conventional lubricants evaporated faster than morning dew. That's where HM-300-400T enters stage left - this graphite-based dry film lubricant laughs in the face of 400°C temperatures while reducing friction coefficients by 60-70%. Unlike its crybaby counterparts that fail above 200°C, this coating sticks around like your most persistent sales rep.

### Three Scenarios Where HM-300-400T Saves the Day

- Pizza oven conveyor systems: Survives cheese drips AND 288°C heat cycles
- Automotive brake pad assemblies: Reduces squeal without compromising thermal stability
- Plastic injection molding: Outlasts 10,000+ cycles in 180-220°C environments

### The Secret Sauce: More Than Just Graphite

While competitors use basic graphite solutions, HM-300-400T employs a proprietary cocktail:

### Performance Cocktail Ingredients

- 35% expanded graphite matrix
- 20% ceramic microspheres (think tiny heat shields)
- 15% phenolic resin binder
- 30% "Proprietary Magic" (our engineers won't budge on details)

### Real-World Results That Don't Melt Under Pressure

A 2024 case study with a major steel manufacturer revealed:

#### Metric

Before HM-300-400T

After HM-300-400T

#### Rolling mill bearing lifespan

72 hours

850 hours



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Monthly lubricant costs

\$12,400

\$1,800

Emergency maintenance calls

14/month

2/month

## Application Tips From the Front Lines

Our field engineers swear by these pro tips:

### Surface Prep: The Make-or-Break Step

Grit blast to SA 2.5 standard (think "new penny" shine)

Apply within 2 hours of cleaning - surfaces oxidize faster than avocado slices

Use crosshatch spray pattern (imagine painting a tic-tac-toe board)

## Future-Proofing Your Maintenance Strategy

With Industry 4.0 adoption accelerating, HM-300-400T plays nice with:

IoT vibration sensors (coating wear correlates with harmonic patterns)

Predictive maintenance algorithms

Automated reapplication systems

## When NOT to Use This Miracle Worker

Even superheroes have kryptonite:

Submerged saltwater applications (stick with marine-grade alternatives)

High-vacuum environments above 10<sup>-2</sup> Torr

Food contact surfaces (we're working on FDA approval)



## **HM-300-400T: The High-Temperature Hero Your Machinery Deserves**

Pro tip: Always request a free sample kit - our 200g trial size has saved countless engineers from "oops, wrong coating" disasters. Just don't ask how many coffee mugs get used as mixing containers on night shifts...

Web: <https://www.sphoryzont.edu.pl>