

## SUSTAMID 6G M NYLON SHEAVES

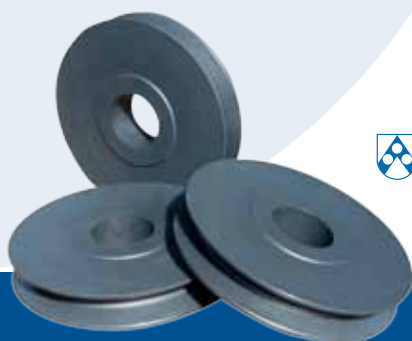


Sustamid 6G M sheaves offer significant advantages over traditional metal sheaves -

- Sheave life typically 2 x steel or cast sheaves
- Rope life 6 x that of metal sheave installations
- No need to paint or lube
- Reduced weight
- Faster delivery times

### ORIGINS

Engineering plastics have, since the 1950's, shown the ability to out perform aluminium, iron or steel in many wire rope load applications. Dotmar's Sustamid 6G M material has gained a reputation for reliability and ease of service in the crane, lifting, hoist, and other load bearing wire rope applications or industries. Nylon sheaves are now used by most of the world's leading crane and hoist manufacturers.



**RÖCHLING**  
Engineering Plastics

### SUSTAMID 6G M SHEAVE BENEFITS

#### IMPROVED SERVICE LIFE

Sustamid 6G M nylon sheaves not only provide exceptional durability and performance in demanding applications, their unique combination of physical properties significantly improves wire rope life in operation.

Wire rope running over a Sustamid 6G M nylon sheave can have its serviceable life extended by as much as 600%, through less crown and tangential breaks. Equipment operation is improved since Sustamid 6G M nylon is lighter and has self-lubricating properties. These qualities allow for greater loads on booms and lower maintenance costs.



Figure 1. Strand break on six (6) lay wire rope.



Figure 2. Typical straddle crane

## INCREASED ROPE LIFE

Due to the ability of Sustamid 6G M nylon to undergo a reversible non-permanent deformation around the individual rope strands, wear on the outer layer of strands is almost eliminated.

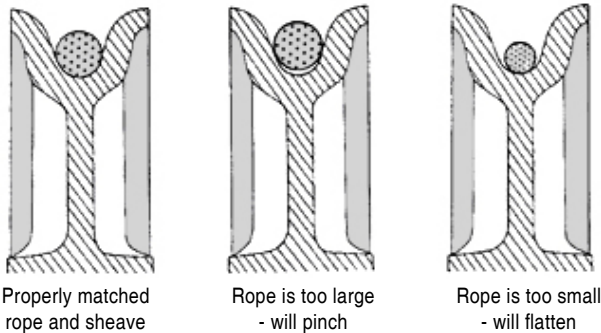


Figure 3. Typical problems which occur on steel sheaves

## CORROSION PROTECTION

Sustamid 6G M nylons are impervious to rust and salt water corrosion. The corrosion resistance is a property of the material itself and does not rely on the integrity of paint or similar thin coating to protect the sheave.

## REDUCED WEIGHT

Sustamid 6G M nylon sheaves are approximately one-seventh the weight of steel sheaves of the same dimensions and approximately one-half the weight of aluminum sheaves.

The use of Sustamid 6G M nylon sheaves results in reduced dead weight, increased working capacity, and lower inertial loads in operation. Furthermore, reduced weight of Sustamid 6G M nylon sheaves makes it easier to handle during installation and replacement than their steel counterparts.



Figure 4. Split sheave with removable central hub

## TOTAL APPLICATION SOLUTIONS

**MAXIMIZED production efficiency and HIGHEST levels of quality.**

Dotmar operates 5 state-of-the-art plastic machining technology centres across New Zealand & Australia. Skilled at thermoplastic part conversion, our CAD/CAM design specialists support end-users in applications advice and part design.

Dotmar's advanced capabilities in the production of thermoplastic components include; CNC turning, routing and milling & spindle moulding, grinding, waterjet cutting, laser cutting and stamping.



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Dotmar has the ability to provide technical support on suitability of nylon, and more importantly Sustamid 6G Min your application via our Technical Sheave Design Web Page.

This is available via our web site: [www.dotmar.co.nz](http://www.dotmar.co.nz)  
Click a "TECHNICAL" then select "DESIGN GUIDES".