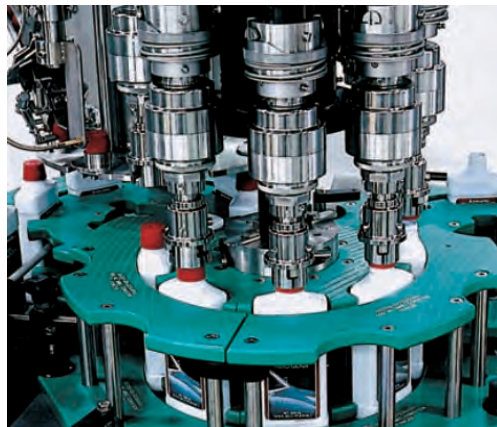




VERSATILE THERMOPOLYMERS FOR TAILORED INDUSTRIAL APPLICATIONS - Food and Beverage, Bottling and Canning, Packaging and Conveying, Materials Handling.

FASTER means HOTTER, and in reality some traditional construction materials used in factories just can't take it...

The high demands on components in processing plants mean high frictional heat, more wear, increasingly aggressive and hotter cleaning cycles to turn lines around faster as well as lubrication issues. The results...

Unforeseen part failures from higher wear, a rise in maintenance costs and plants not running at optimum capacity. Higher temperatures mean more dimensional change in traditional parts causing mating parts to buckle or gap. The knock on effect is poor fit, leakage and food collecting in the gaps between parts.

KEY INDUSTRY DRIVERS ARE:

**MORE PRODUCTION
OUTPUT**



**FASTER PRODUCTION
THROUGHPUT**

But pushing for MORE & FASTER results in:

- Higher line speeds and temperatures - higher output.
- More frictional heat and more wear.
- More frequent lubrication.
- More dimensional change in equipment parts.
- More aggressive, hotter cleaning chemicals – faster line clean-up and change-over.
- More chemical degradation of parts.
- More dimensional changes in equipment parts.

Correct material selection now gets challenging...

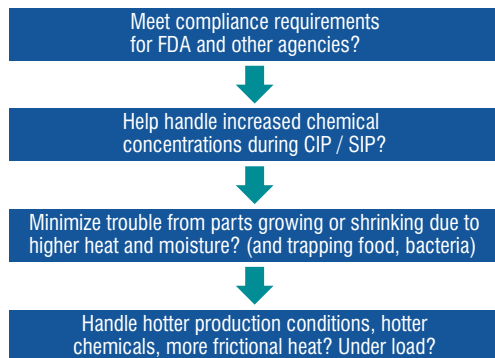
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THE QUESTION IS, CAN THERMOPLASTICS...



In the food and beverage industries the following key properties are required:

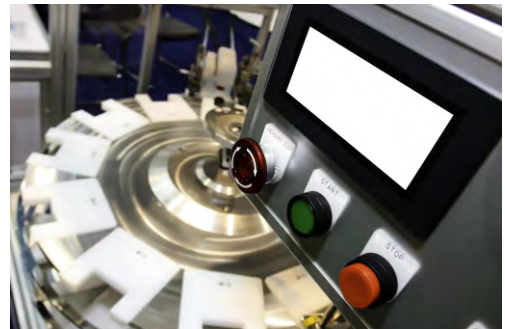
- **CHEMICAL RESISTANCE** - More aggressive chemicals— faster line turn-around time in CIP/SIP cleaning.
- **HEAT RESISTANCE** - Hotter product processing & cleaning more through-put and faster line turn-around time.
- **DIMENSIONAL STABILITY** - Higher temperature swings results in greater potential for part growth/shrinkage causing gaps or buckling. Trapped food = bacterial growth.
- **SELF LUBRICATION** - Reduces wear and the cost and time of lubrication. Minimize potential contamination from external lubricants which extends run time between maintenance cycles.

Thermoplastics commonly used include Polycarbonate (PC), Nylon (Sustamid® / Afrimide), Polyester (Sustadur® / Afripet), Acetal (Sustarin® / Afripom C), PTFE (Teflon®) and HDPE (Polystone® G / Afrilene P300).

- Excellent impact, abrasion and chemical resistance.
- Ability to reduce and absorb noise. (Ideal for bottling, canning, conveying plants)
- Low coefficient of friction. (Suited for high speed conveyors)
- Broad operating temperature range.
- Easy to machine and process.

OEM replacement parts provide:

- Improved part life.
- Reduced or eliminate lubrication.
- Extend life of mating parts.
- Lighter weight - Increased system efficiency.



APPLICATIONS INCLUDE:

Split sprockets offering higher impact and wear resistance, improved hygiene, easy replacement, maintenance and very importantly noise reduction.

Star wheels, chain guides, sprockets, guide rails, wear strips, mixer linings, timing screws, change parts, feed scrolls, bushes, bearings, rolling pins, stirrers, mallets, mixer blades, cutting boards, dies, cutters and belt scrapers are all common machined items.

With thermoplastics we reduce the **TOTAL** cost of the system and maintenance.

