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ALLTHREAD PLASTICS LTD

Ridley Road, Burnt Mills Industrial Estate, Basildon, Essex SS13 1EG England Tel: 44 (01268) 726559 Fax: 44 (01268) 725287

DATA SHEET

HEALTH AND SAFETY AT WORK ACT, 1974

NYLON 6.6

As the condition under which our products may be used are beyond our control, any statement or recommendation is made without warranty or guarantee.

CHEMICAL NAME - Polyamide.

NORMAL STATE - Moulded Components/Extruded Rods.

NORMAL COLOUR - Natural. **ODOUR** - None.

REACTION WITH WATER - None. Water Absorption 24 hour 1/8" thick to A.S.T.M. D 570.

REACTION WITH OTHER CHEMICALS - Data on request.

STABILITY - Heat distortion temperature 182 degrees C at 66 p.s.i. to A.S.T.M. D 648. Melting Point 260 degrees C to A.S.T.M. D 569.

TOXICITY - Unsuitable for use in direct contact with food.

FLAMABILITY - Self extinguishing to A.S.T.M. D 635.

FIRE FIGHTING - Small fires - dry chemical or CO2 extinguishers. Large fires - foam or water.

Use breathing apparatus in presence of smoke/fumes.

PERSONNEL PROTECTION - No special precautions.

WASTE DISPOSAL - Do not incinerate. Use dry waste disposal.

Form HS04

THERMOPLASTIC FASTENERS • CUSTOM INJECTION MOULDERS • STOCKISTS ENGINEERING PLASTICS

Directors: A. C. Hampson J. I. Hampson

Reg. in England No. 1654820



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QUALITY, TOLERANCES AND GENERAL INFORMATION OF INJECTION MOULDED NYLON FASTENERS.

ALLTHREAD PLASTICS LIMITED manufacture a comprehensive range of Thermoplastic Fasteners using the Engineering grade of NYLON type 6.6. in a Natural Colour, although Fasteners can be produced in other colours using a Masterbatch additive. The material is tough, light weight, resists corrosion and is a good electrical insulator. Nylon 6.6 Fasteners conform to irregular surfaces, resist vibration and offer an inexpensive alternative to Metal counterparts. Nylon does, however, absorb moisture from the environment and this causes flexibility and significant changes in its dimensions and whilst parts can be moisture conditioned, they can then lose moisture, causing dimensional problems. If the overall length of the Screw grows, then it can obviously effect the threads per inch, thus causing a tight fit. Changes in moisture content can effect the outside diameter and pitch.

TOLERANCES are generally held to $\pm .015"$ or fractional dimensions and $\pm .005"$ on 3 place decimals. Metric are generally held to $\pm .13\text{mm}$ on a 2 place decimal and $\pm .26\text{mm}$ on a 1 place decimal. Since Nylon Fasteners are not held to such close tolerances as Metal, a slight mismatch or minor flashing is not as serious. End users submitting Nylon Screws to go-no go gauges without actually trying the Fasteners in its proposed function/application will generally cause unnecessary difficulties for both themselves and for their supplier. Nylon Screws and Nuts are simply not **measurable** by the same methods as **Metal** ones.

QUALITY is dependent upon the method of manufacture and does vary. Mouldings often have small amounts of flashing, knockout pin marks, gates, sinkeage and slight imperfections. Screws and Bolts are gated on the threaded end and it is possible for the gate to leave an extra projection of up to $.025"$. Injection Moulded Nylon Screws are produced using mould cavities parted along the length of the Screw and the two halves must be matched exactly to produce a perfect part. The cavities come together with ejector pins and other locking devices are used to hold the mould in alignment. In the course of production however, the pins, locks and base suffer some wear. The Injection Moulding Machine also suffers wear and can cause platen misalignment.

Any dirt on the mould also causes slight mismatch and the entire process must be constantly monitored in order to avoid misalignment. Mould temperatures change from room temperature to production temperature and this also causes some misalignment. Moulding tools must be re-furbished after a certain period of use and in some cases it is necessary to have the mould completely re-worked to bring it back to its original condition.

ALLTHREAD PLASTICS LIMITED is totally committed to producing top quality Thermoplastic Fasteners and we are constantly up-dating Injection Moulding Machinery and Tools in order to provide our valued customers with High Quality Products.

FormQTG1

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