Product Code
96000

PRATLEY®

Contents
1,2 kg
(3 Tins x 400 g each)

PRATLIMOLD®
CASTABLE TOUGH PLASTIC

(IDEAL FOR THE C.N.C. MACHINING OF PROTOTYPES)

GENERAL

PRATLIMOLD is a unique, high strength, dimensionally stable, castable plastic compound, which can be machined, carved, sawn and drilled. It can be cast in very thick sections, is self-lubricating during machining and has completely isotropic mechanical properties. Ideal for C.N.C. machining of prototypes.

KEEP ALL CONTAINERS AND MOULDS BONE DRY!

TYPICAL PROPERTIES

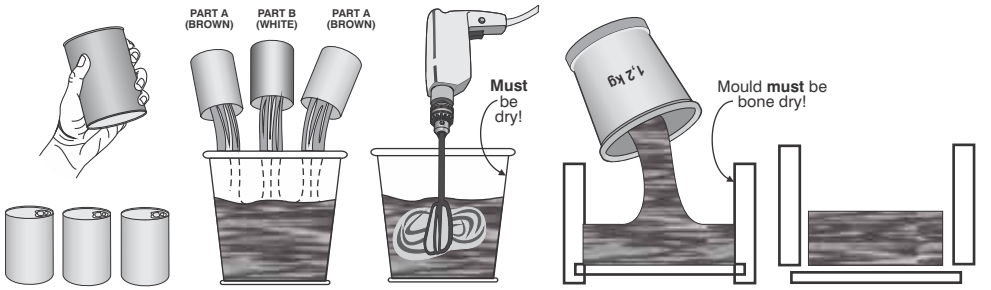
- Colour - Cream.
- Once set it can be sawn, filed, carved, drilled, sanded and machined at very high speeds.
- Accepts paint (after surface grease or release agent has been removed with a solvent such as thinners).
- Can be glued with Pratley WONDAFIX.
- Good electrical insulator (dielectric strength 13 kV/mm).
- High resistance to oil, water and most common chemicals.
- Can be plated.
- Density 1,14 g/mℓ.
- Gel time - 15 to 25 minutes at 25 °C.
- Will maintain its properties (strength) up to 95 °C continuous. Thereafter, properties will deteriorate up to a limiting 140 °C.
- Thermal expansion co-efficient 1,1 x 10^{-4}/°C.
- Ultimate tensile stress 56 MPa (8100 p.s.i.).
- Elasticity modulus 1.13 GPa (164 000 p.s.i.).
- Self-lubricating.

POLICY STATEMENT
"The performance of our products must exceed all others on the World Market"
K & M Pratley
CEO

TIME TO SET:

PRATLIMOLD can be de-moulded after approximately 2 hours.
Allow PRATLIMOLD to harden sufficiently before machining, carving, drilling, etc. (± 5 hrs).
If machined before 5 hours it will deform under load and appear brittle.

1. SHAKE **2. MIX** **3. STIR** **4. CAST** **5. DEMOULD**



Shake tins & leave for 3 minutes before opening.

Pour contents of all 3 tins into DRY plastic bucket.

Mix thoroughly for at least 3 - 6 minutes.

Pour into bone dry plastic or pre-warmed metal mould.

After 2 hours the casting can be stripped from the mould.

Very Important! - Must be kept absolute moisture free during mixing and casting! Even minute traces of water will result in bubbles and foaming.

MIXING

- Shake tins and leave to stand for 3 minutes before opening (This allows the special desiccant to absorb any trace moisture).
- Use contents of all three tins. Once opened, contents cannot be stored.
- Mix ratio is 2:1.
- It is very important to mix thoroughly and vigorously. Preferably use an electrically driven propeller stirrer (or improvised with the aid of an electrical drill).
- Mix in a *bone dry* polythene container for at least 3 to 6 minutes.
- Make sure that the mixture is cast within 8 minutes of mixing.

CASTING

- If a metal mould is used it should be pre-heated to ±90 °C. Good results can, however, be achieved by the simple method of using an insulated mould, e.g., plastic container such as a bucket.
  N.B. - Cold metal moulds cause a thin brittle layer to form over the surface of the cured PRATLIMOLD.
- Do not cast sections thinner than 5 mm in a cold mould.
- Cast in a *bone dry* open-top mould. The top few millimetres may contain small entrapped bubbles which float to the surface. (This can be prevented by using a very dry mould or casting under vacuum, or leave mould in direct sunlight.)
- If the cast is elongated, a better moulding will be achieved if the long dimension is vertical. This facilitates the migration of small entrapped bubbles towards the top.
- PRATLIMOLD does not stick to metals but it is best to use a smooth mould.
- Do not place casting on a hot surface when de-moulding as this will cause uneven cooling and warp the casting.
- PRATLIMOLD will heat up during cure and will retain this heat for some considerable time.
- The finished product may contain some microscopic entrapped bubbles. If this is a problem, the product must be cast under vacuum.

SOME SUGGESTED USES

- Excellent as a C.N.C. machine program proving material (can be machined at very high speed to produce good surface finish with little tool wear).
- Perfect for models and prototypes.
- Cast rods for machining of bushes.
- Material for artistic carving.
- Mould complex shapes.
- Makes patterns for castings.
- Invaluable in the workshop.
- Make self-lubricating bearing bushes.
- Make electrical insulators.

MACHINING

Best results are achieved using fast machining speeds and sharp tools with a generous rake angle.

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Produkkode
96000

PRATLEY®

Inhoud
1,2 kg
(3 Houers x 400 g elk)

PRATLIMOLD®
GIETBARE STERK PLASTIEK

(IDEAAL VIR REKENAARBEHEERDE MASJINERING VAN PROTOTIPES)

ALGEMEEN

PRATLIMOLD is 'n unieke, hoë sterkte, dimensioneel-stabiele, gietbare plastiek verbinding, wat gemasjineer, gesny, gesaag en geboor kan word. Dit kan in baie dik snitte gegiet word, is selfsmerend tydens masjienbewerking en het isotropies-meganiese eienskappe. Ideaal vir Rekenaarbeheerde masjinering van prototipes.

HOU ALLE HOUERS EN VORMS KURKDROOG!

TIPIESE EIENSKAPPE

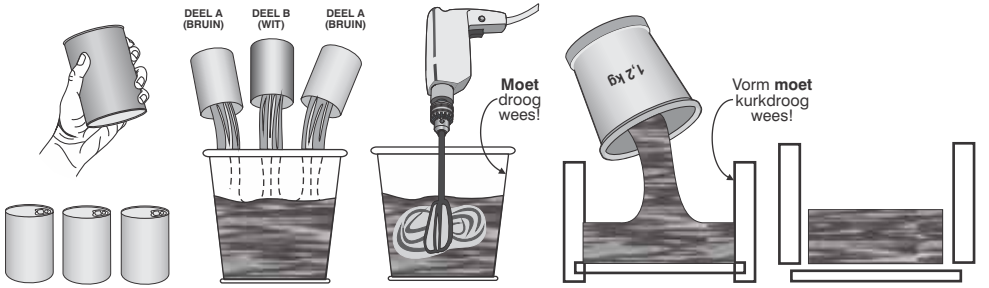
- Kleur- Roomkleurig.
- Na verharding kan dit teen 'n baie hoë spoed gesaag, gevyl, gesny, geboor, geskuur en gemasjineer word.
- Kan geverf word (nadat oppervlakvette of losmaakmiddel met 'n oplosmiddel soos 'n verdunner verwyder is).
- Kan met Pratley WONDAFIX geheg word.
- Is 'n goeie elektriese isolator (diëlektriese sterkte 13kV/mm).
- Het 'n hoë weerstand teen olie, water en die meeste algemene chemikalieë.
- Kan geplateer word.
- Digtheid 1,14 g/mℓ.
- Settyd - 15 tot 25 minute teen 25 °C.
- Sal eienskappe (sterkte) voordurend behou tot 95 °C. Daarna sal eienskappe versleg tot 'n beperkte 140 °C.
- Warmte-uitsettingskoëffisient 1,1 x 10^{-4}/°C.
- Breektrekspanning 56 MPa (8100 p/vk dm).
- Elastisiteitsmodulus 1.13 GPa (164 000 p/vk dm).
- Selfsmerend.

BELEIDSVERKLARING
"Die werkverrigting van ons produkte moet enige ander op die wêreldmark oorskryf"
K G M Pratley
CEO

SETTYD:

PRATLIMOLD kan na ongeveer 2 ure uit gietvorm verwyder word.
Laat PRATLIMOLD deeglik hard word voordat dit gemasjineer, gesny, geboor, ens. word (± 5 ure).
Indien voor 5 ure gemasjineer word, sal dit onder las vervorm en bros voorkom.

1. SKUD **2. MENG** **3. ROER** **4. GIET** **5. ONTGIET**



Skud houers goed en laat vir 3 minute staan voor oopmaak.

Giet inhoud van al 3 houers in 'n DROË plastiese emmer.

Meng deeglik vir ten minste 3 - 6 minute.

Gooi in 'n kurkdroë plastiek of vooraf verhitte staalvorm.

Na 2 ure kan die gietstuk uit die gietvorm verwyder word.

Baie belangrik! - Moet absoluut droog gehou word terwyl u meng en giet! Die geringste teken van water sal lugblasies en skuim tot gevolg hê.

VERMENGING

- Skud houers en laat vir 3 minute staan voor oopmaak (Dit laat toe dat die spesiale droogmiddel vogspore absorbeer).
- Gebruik die inhoud van al 3 houers. As dit eers oopgemaak is, kan dit nie weer geberg word nie.
- Mengverhouding 2:1.
- Dit is baie belangrik om dit deeglik en met fors te meng. Gebruik verkieslik 'n elektriese skroefaangedrewe roertoestel (of improviseer met behulp van 'n elektriese boor).
- Meng in 'n *kurkdroë* politeen houer vir ten minste 3 to 6 minute.
- Sorg dat mengsel binne 8 minute na vermenging gegiet word.

GIETING

- As 'n metaal gietvorm gebruik word moet dit eers voorverhit word tot ±90 °C. Goeie resultate kan egter verkry word deur die gebruik van 'n eenvoudige geïnsuleerde gietvorm, byvoorbeeld 'n plastiese emmer.
  N.B. - Koue gietvorme veroorsaak 'n dun, harde, bros lagie op die oppervlak van die verharde PRATLIMOLD.
- Moenie snitte dunner as 5 mm in 'n koue gietvorm giet nie.
- Giet in 'n *kurkdroë* gietvorm wat aan die bokant oop is. Die boonste paar millimeter mag klein vasgevange lugblasies wat na die oppervlakte beweeg bevat. (Dit kan verhoed word deur 'n baie droë gietvorm te gebruik of om in 'n vakuum te giet, of die gietvorm in direkte sonlig te los.)
- Met 'n langwerpige gietvorm word 'n beter gietstuk verkry as die lang dimensie vertikaal gehou word. Dit vergemaklik die ontsnapping van lugblasies na die bokant.
- PRATLIMOLD kleef nie aan metaal vas nie, maar dit is beter om 'n gietvorm wat glad is te gebruik.
- Moenie gietvorm op 'n warm oppervlak plaas wanneer gietstuk uitgehaal word nie. Dit sal onegalige afkoeling veroorsaak wat die gietstuk sal laat skeef trek.
- PRATLIMOLD word tydens die verhardingsproses warm en behou die hitte redelik lank.
- Die klaarproduk mag mikroskopiese lugblasies bevat. As dit 'n probleem is, moet daar in 'n vakuum gegiet word.

ENKELE GEBRUIKSVOORSTELLE

- Ideaal vir gebruik as toetstuk in programme vir rekenaarbeheerde masjiene (kan teen baie hoë spoed gemasjineer word om 'n goeie oppervlakafwerking te verkry met min werktuig slytasie).
- Geskik vir modelle en prototipes.
- As gietstawe vir masjienbewerking van busse.
- Materiaal vir kunssneewerk.
- Om ingewikkelde vorme mee te maak.
- Om patrone vir gietstukke te maak.
- Onmisbaar in 'n werkswinkel.
- Maak selfsmerende laerbusse.
- Maak elektriese isolators.

MASJIENBEWERKING

Die beste resultate word verkry teen hoë snyspoed en met skerp gereedskap met 'n skerp snyhelling.

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