



PETA KONSEP CONCEPT MAP

BAHAN BUATAN DALAM INDUSTRI MANUFACTURED SUBSTANCES IN INDUSTRY

Aloi Alloy

diperbuat daripada
made from

Campuran dua atau lebih unsur yang mana unsur utamanya ialah logam
Mixture of two or more elements where the main element is a metal

Sifat / Properties

- Lebih keras / Harder
- Lebih kuat / Stronger
- Tahan kakisan / Resistant to corrosion

Contoh / Examples

- Duralumin / Harder
- Gangsa / Bronze
- Loyang / Brass
- Keluli / Steel
- Keluli nirkarat / Stainless steel
- Piuter / Pewter

Kaca Glass

diperbuat daripada
made from

Kaca Glass

Sifat / Properties

- Keras tetapi rapuh / Hard but brittle
- Lengai secara kimia / Chemically inert
- Lut sinar / Transparent
- Kalis air / Waterproof
- Penebat haba dan elektrik
Heat and electrical insulator

Jenis / Types

- Kaca silika terlakur
Fused silica glass
- Kaca soda kapur
Soda-lime glass
- Kaca borosilikat
Borosilicate glass
- Kaca plumbum
Lead crystal glass

Seramik Ceramic

Sifat
Properties

- Penebat haba dan elektrik
Heat and electrical Insulator
- Keras dan kuat / Hard and strong
- Lengai secara kimia / Chemically inert
- Rintangan haba tinggi / Resistant to high heat
- Mudah pecah / Easily broken

Jenis / Types

Seramik tradisional Traditional ceramic

diperbuat daripada / made from

Tanah liat seperti kaolin,
 $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$
Clay such as kaolin,
 $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$

Seramik termaju Advanced ceramic

Bahan bukan organik seperti oksida, karbida, dan nitrida
Inorganic compounds such as oxides, carbides and nitrides

Bahan Komposit Composite Material

diperbuat daripada
made from

Gabungan dua atau lebih bahan yang bukan homogen, iaitu bahan matriks dan bahan pengukuhan
Combination of two or more non-homogeneous substances which are matrix substance and strengthening substance

Contoh / Examples

- Konkrit diperkukuhkan
Reinforced concrete
- Kaca gentian / Fibre glass
- Gentian optik / Optical fibre
- Kaca fotokromik
Photochromic glass
- Superkonduktor
Superconductor