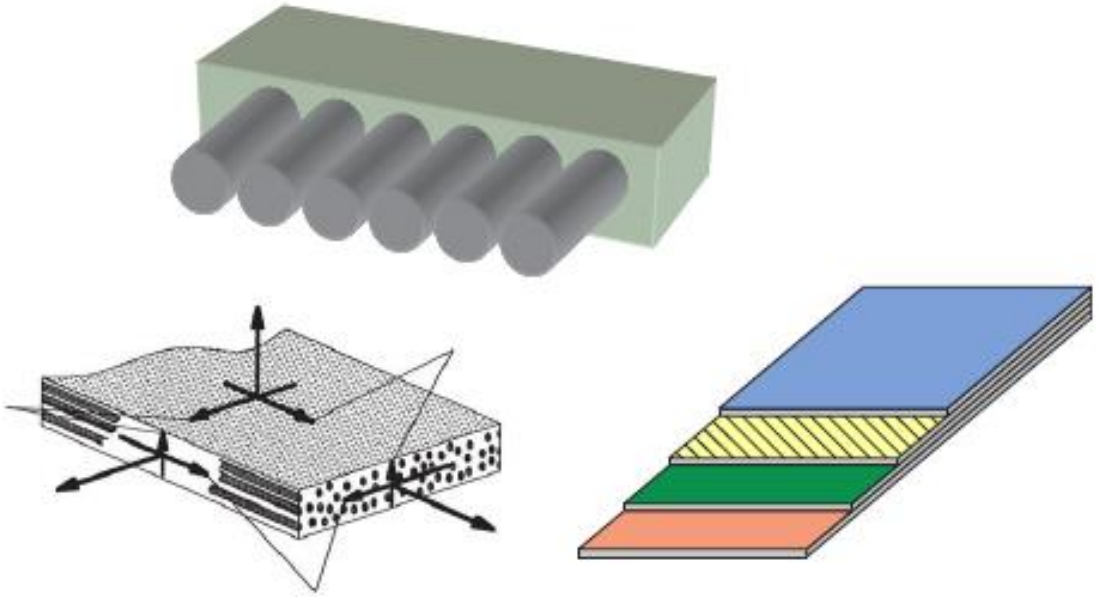
Mekanik Analiz

- Yükleme Durumları

- Fiber Türü
- Yerleşim Düzeni
- Matris Türü

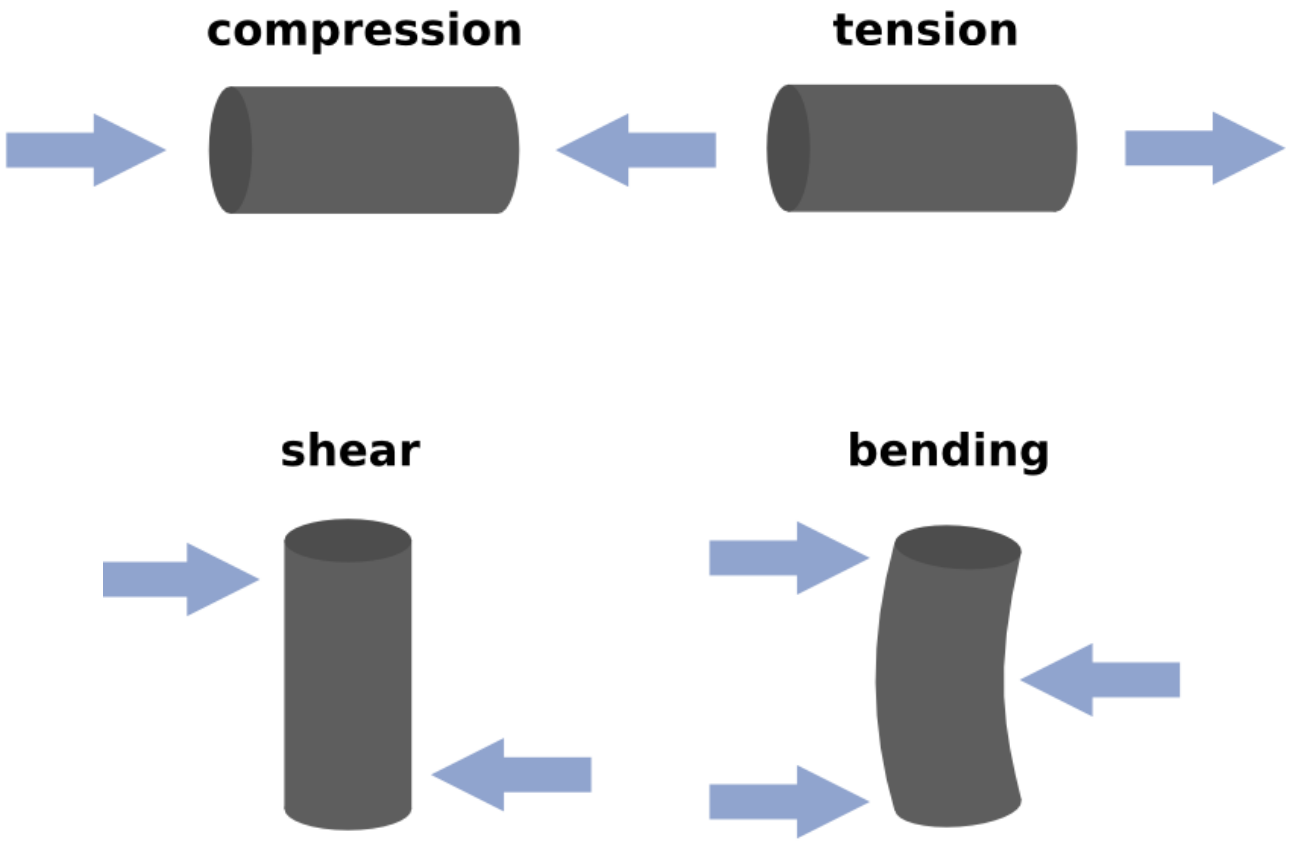
- Karışımlar Kuralı
- Gerilim Hesabı



Mekanik Analiz

Yükleme Durumları

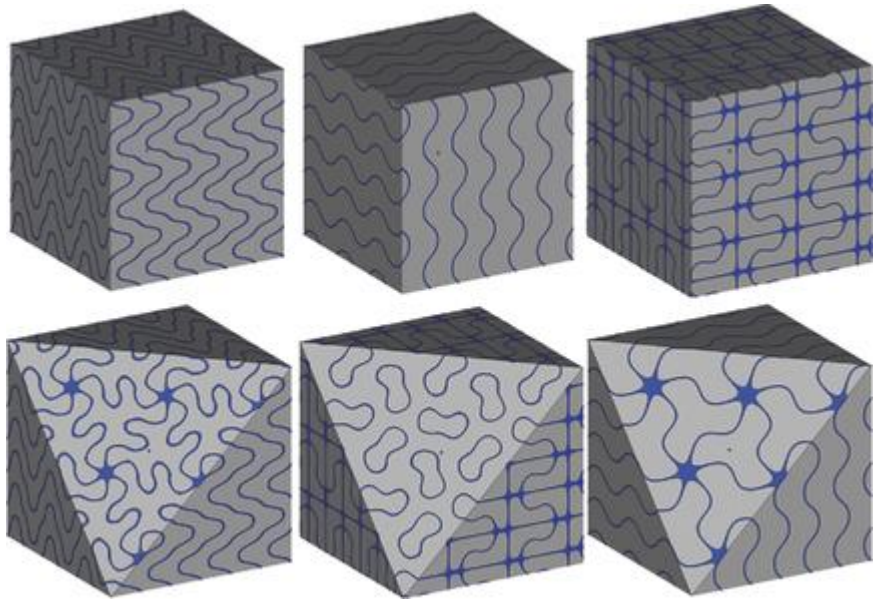
- Çekme
- Basma
- Eğme
- Kesme



Mekanik Analiz

Fiber Yerleşim Düzeni

- Fiber Türü
- Fiber Oryantasyonu
- Fiber Yoğunluğu

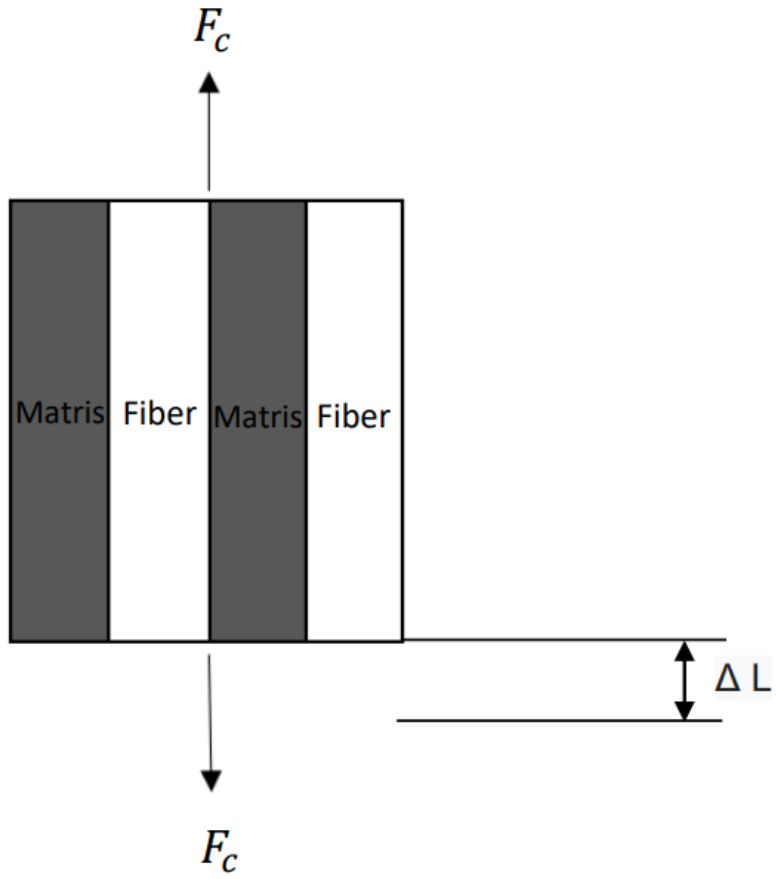


Mekanik Analiz

Karışımlar Kuralı - I

- Dayanım
- Poisson Oranı
- Isıl İletim

- Kuvvet Dengesi
- Hooke Kanunu
- Geometrik Deformasyon



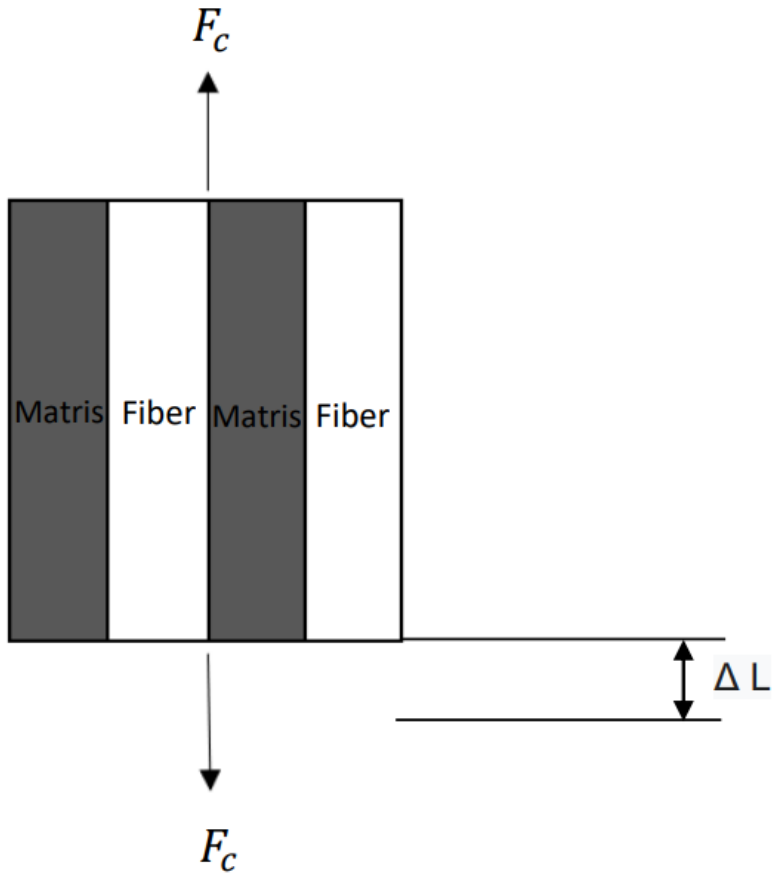
Mekanik Analiz

Karışımlar Kuralı - II

- $Fc = Ff + Fm$ .....(1)
- $\sigma c * Ac = \sigma f * Af + \sigma m * Am$ .....(2)
- $\varepsilon c = \varepsilon f = \varepsilon m$ .....(3)

- $\sigma c = Ec * \varepsilon c$ .....(4)
- $\sigma f = Ef * \varepsilon f$ .....(5)
- $\sigma m = Em * \varepsilon m$ .....(6)

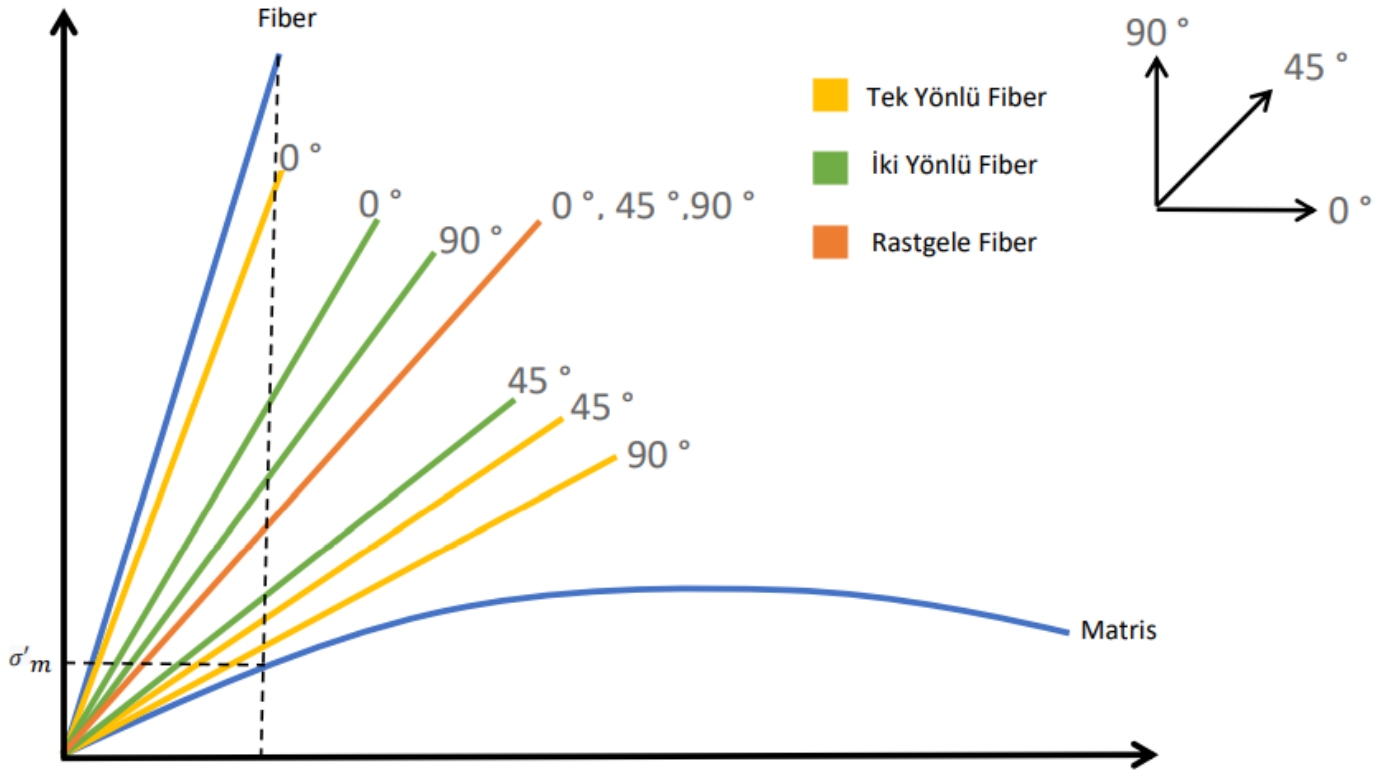
- $Ec * \varepsilon c * Ac = Ef * \varepsilon f * Af + Em * \varepsilon m * Am$ .....(7)
- $Ec = Ef(Af/Ac) + Em(Am/Ac)$ .....(8)
- $(Af/Ac) = (Af/Ac) * L/L = (vf/vc) = Vf$ .....(9)
- $Ec = EfVf + EmVm$ .....(10)



Mekanik Analiz

Gerilim Hesabı

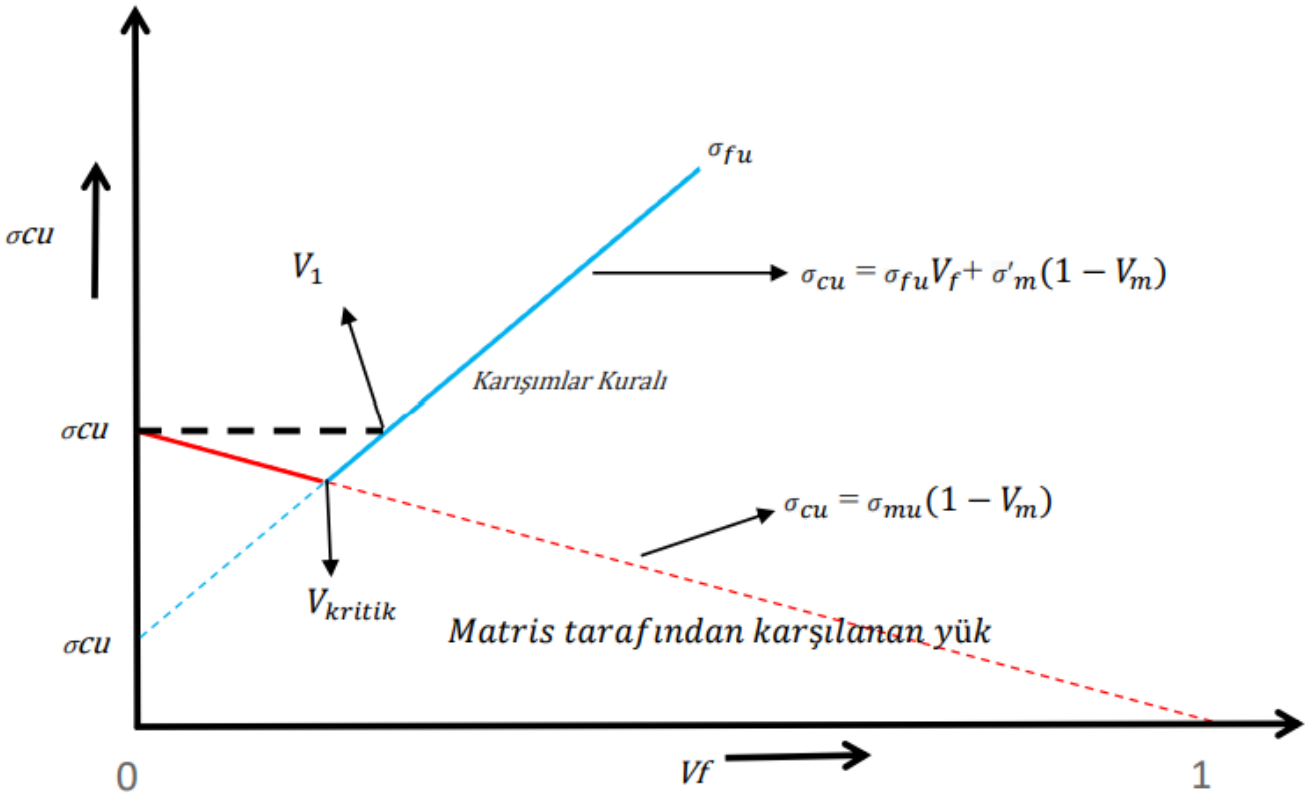
- $Fc = Ff + Fm$
- $\sigma c * Ac = \sigma f * Af + \sigma m * Am$
- $\sigma c = \sigma f * (Af/Ac) + \sigma m * (Am/Ac)$
- $\sigma c = \sigma f Vf + \sigma m Vm$



Şekil 7.2. Gerilim-Gerinim Eğrileri

Mekanik Analiz

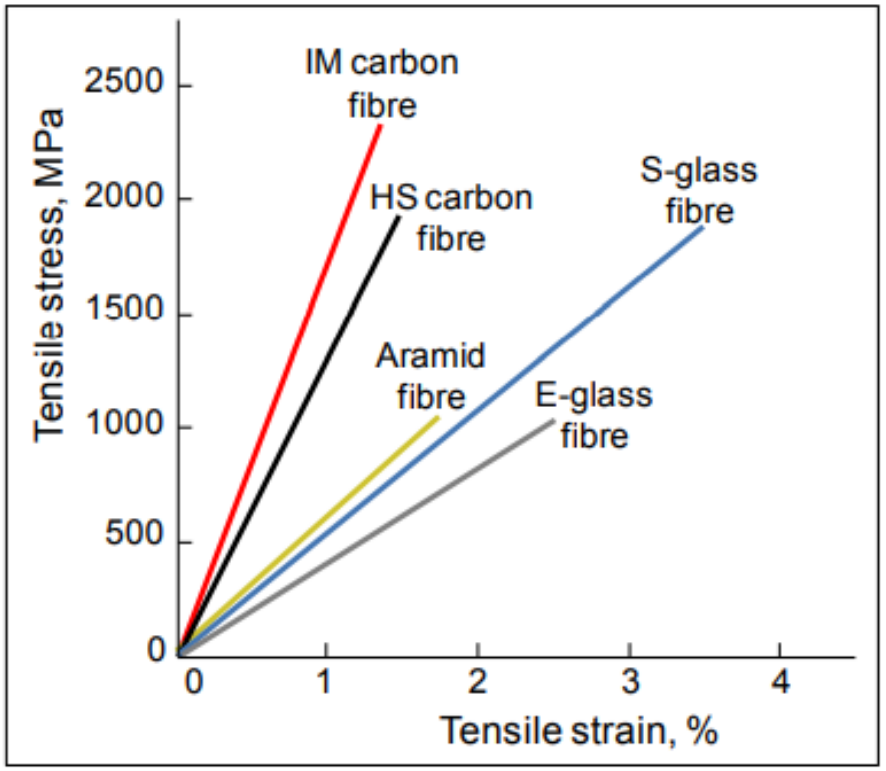
Gerilim Hesabı



Şekil 7.3. V_{kritik} Tespiti

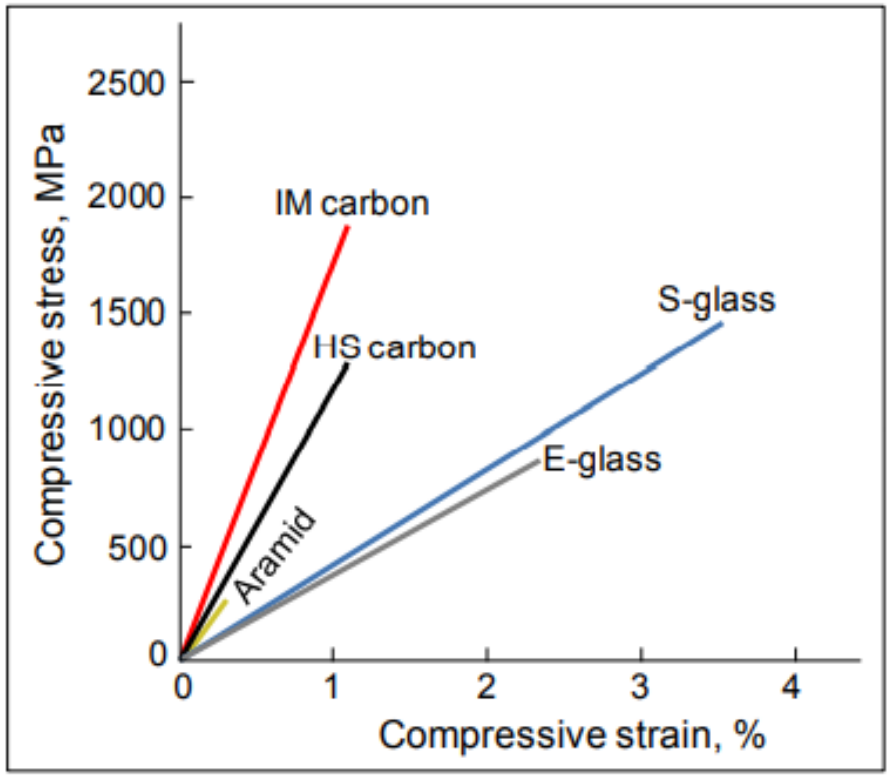
Mekanik Analiz

Çekme Dayanımı



Mekanik Analiz

Basma Dayanımı



İletişim

- Github: https://github.com/grboguz
- Udemy: https://www.udemy.com/user/oguzhan-gurbuz/
- Linkedin: https://tr.linkedin.com/in/o%C4%9Fuzhan-g%C3%BCrb%C3%BCz-4780481a6
- Discord: https://discord.gg/E2bgRskNwK
- Youtube: https://www.youtube.com/channel/UCDZkYlIZMT5EWwLr1wCHFSA