Simulasi Tegangan (Stress) Pada Komponen Rangka Mesin Uji Tarik Sealent Menggunakan Solidworks

Title	Simulasi Tegangan (Stress) Pada Komponen Rangka Mesin Uji Tarik Sealent Menggunakan Solidworks
Author Order	4 of 4
Accreditation	3
Abstract	A series of processes are carried out in order to obtain the desired product result. One of the processes carried out is testing the strength of polymers by means of tensile testing in this case testing of polymer-based sealants. The method used is the method of simulating frame loading on the tensile testing machine that has been made. The software used to assist the simulation process is SolidWorks. The simulation is carried out in static mode or a fixed loading (no movement or vibration). A stress Analysis Simulation is carried out to get the result of static loading in the form of \tilde{A} • $\hat{A}f$ (stress). Loading simulations on the frame of the tensile testing machine for the tensile testing of the sealant are carried out on the components of the frame with different loading variations. Frame components with upward loading are given an average load of 38.5 MPa. Meanwhile, the frame components with downward loading are given an average load of 6.169 MPa. The largest average stress obtained from each component is 0.326 N/mm2. this value does not exceed the yield strength of 235 N/mm2.
Publisher Name	P3M Politeknik Negeri Cilacap
Publish Date	2023-07-31
Publish Year	2023
Doi	DOI: 10.35970/infotekmesin.v14i2.1947
Citation	
Source	Infotekmesin
Source Issue	Vol 14 No 2 (2023): Infotekmesin: Juli, 2023
Source Page	405-412
Url	https://ejournal.pnc.ac.id/index.php/infotekmesin/article/view/1947/631
Author	Ir PROBO HARDINI, S.T., M.T., PhD