

**COMPRESSIVE STRENGTH, SOLUBILITY AND MICRO-LEAKAGE OF
FLAX FIBRES REINFORCED ZINC OXIDE EUGENOL DENTAL
CEMENT MATERIAL.**

Shehata, M.M.¹⁾, Mona, H.A.D.²⁾ and El-Hariri, D.M.^{3)*}

This work was carried out to improve properties of soft zinc oxide Eugenol (ZOE) as dental cement material, This was realized by reinforcement of ZOE with flax fibers . The results indicated that adding this natural material at 0,1% and 0.2% by weight gave good and promising results over untreated checks. Significant increase in compressive strength with 0.1% and 0.2% of flax fibres over control. Solubility percentage showed insignificant tendency to decrease owing to flax fibres applications. Micro-leakage decreased significantly with increasing flax fibers up to 0.2% . These results indicate that reinforcement of ZOE with cellulosic flax fibres improved properties of ZOE with regard to compressive strength, solubility and micro-leakage as dental cement material.

1) Shehata, M.M. Associate Prof., Dental materials Dept. Fac. Of Dentistry, Tanta, University, Egypt.

2) Mona, H. Abou Daya, Associate Prof., Dental materials Dept. Fac. Of Dentistry, Alexandria University, Egypt.

3) El-Hariri, D.M. Prof., Head of field Crops Res. Dept., N.R.C., Dokki, Cairo, Representative of Near East. FAO Flax Res. Network, EGYPT.