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## Oxidation products in refined sunflower oil created during frying in diferent conditions

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Under the air oxygen influence, light, heat and influence from other factors, the quality and nutritional value of cooking oil have been reduced. The oil which was analyzed is “Kristal”, refined sunflower oil made by Blagoj Gjorev, Veles. The oil has been fried from 0 to 10 minutes at a temperature from 27°C to 200°C. Under these conditions, the Wheeler method was used to determine the peroxide number. Oven test was used to determine the oil stability. Peroxide number of the oil fried from 0 to 10 minutes at a temperature from 27 °C to 200°C continuously increases from 0,357 mmol/kg to 6,4762 mmol/kg. Peroxide number of the oil analyzed by the Oven test increased from 2,41 mmol/kg for 24 hours to the value of 16,67 mmol/kg for 96 hours. The oil that has been fried for 10 minutes and reached a temperature of 200°C should not be used in food. The oil which is kept in an open bottle at room temperature can be used up to 24 days.

**Keywords:** sunflower oil, peroxide number, Oven test, frying

### Biography

Gorica Pavlovska has a PhD in chemical sciences. She earned her PhD at the Institute of Chemistry at the Faculty of Natural Sciences and Mathematics at Ss Cyril and Methodius University in Skopje. She has published more than 40 papers in prestigious journals. According the Scopus database, she has published 17 papers with impact factor and she has been cited more than 300 times.

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