



PILOT TREATMENT ACT OF 17.04.2002

Oven bearings up to 190 °C: clearance reduced, flushing eliminated

Palianitsa LLC, bakery — bakery products shop · approved by Director V. G. Khil; the act was signed by shop mechanic S. V. Ponomariov and XADO LLC engineer I. N. Sharaikin

Ukraine · treatment 26.02.2002 · act 17.04.2002 · running time at the moment of measurement 480 h

PRODUCT

XADO-250 heat-resistant grease
treatment by XADO technology,
performed 26.02.2002

TREATED OBJECT

Industrial oven No. 1 of the bakery
two No. 306 radial ball bearings
in the conveyor shaft supports

DOCUMENT TYPE

Company act
with signatures and seal

UNIT AND INITIAL CONDITION

Oven No. 1, conveyor shaft supports — two **No. 306** bearings

OPERATING CONDITIONS

Temperature **160-190 °C**, humidity above **75 %** — steam released during bread baking

WHAT WAS MEASURED

Radial clearance, condition of the working surfaces

Standard grease before treatment — industrial oil mixed with graphite, previously LITOL-24

Bearing service life **6-8 months**, weekly maintenance

Maintenance interval, grease consumption

Measurements were taken after 480 hours of oven operation in standard mode on XADO-250 grease.

Key results

↓ **0.01 mm**

radial clearance in each of the two bearings, measured after 480 h of operation

↑ **2.9-3.6×**

maintenance interval of the unit, 100-120 → 350-360 h

↓ **60 %**

grease consumption, 100 → 40 % of the previous volume

Oven bearing unit: before treatment and after 480 hours on XADO-250

PARAMETER	BEFORE TREATMENT	AFTER TREATMENT
Radial clearance of the bearing	Intensive wear of the working surfaces	Reduced by 0.01 mm in each of the two bearings
Maintenance of the unit	Removal of old grease, flushing and packing of a new portion every 100-120 h — weekly	Grease top-up once every 350-360 h — once in 3 weeks; flushing and replacement eliminated
Grease consumption	100 % — industrial oil mixed with graphite	No more than 40 % of the previous amount
Condition of the working surfaces	Corrosion, residues of coked grease	Surfaces cleaned of corrosion and residues of the standard grease, no coking

Measurements under standard oven conditions: temperature 160-190 °C, humidity above 75 %.

Conclusion of the act

Before treatment the unit worked in heat and steam: the standard grease coked, the working surfaces corroded, the bearing lasted **6-8 months** and required flushing every week. The commission of Palianitsa LLC recorded: a detailed analysis of the results of treating the bearings with XADO-250 heat-resistant grease gives grounds to conclude that the use of this grease for bearings of units operating in similar conditions will make it possible to protect them from the effects of an aggressive environment, to restore worn friction surfaces and to increase service life by at least **3x**. At present the remaining bearing units of the bakery's ovens and electric motors are being transferred step by step to XADO heat-resistant greases.

XADO

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The results relate to No. 306 bearings in the conveyor shaft supports of a bakery oven operating at 160-190 °C and humidity above 75 %; on other units and under other conditions the figures may differ. The treatment was performed by XADO LLC, the act was approved by the director of Palianitsa LLC and signed by the shop mechanic. The original act is published in full and available for download.