

ATTACHMENT XIV

Specifications for Greases Supplied to the German Air Ministry

Specifications for Aircraft Greases

Specification for RLM*	TL No.	Aircraft grease, blue	VDM 42 adjustable propeller grease	Aircraft instrument grease, new	Aircraft release lever grease	Aircraft coolant pump grease	Protective grease 40 (1)	Aircraft journal bearing grease	Aircraft converter grease (2)	Ordnance grease
Issued June, 1944 No. 1	TL 147 - 735 1	Alk. earth soap Raffinate Sudan blue GN	Alkali alk. earth soap Raffinate Coll. Graphite	Alkali soap Raffinate Sudan red	Earth metal soap Raffinate	Alk. earth soap Raffinate	Mixture of wax, min. oil, paraffin, vasoline	Alkali soap Raffinate	Alkali soap Raffinate	Alkali soap Raffinate
9055	TL 147 - 755 1	structureless, smooth	structureless, stringy	structureless, smooth or short-fibred	structureless, smooth, stringy	structureless, smooth	structureless, smooth	structureless, short or long fibred	Homogeneous fine-grained	Block grease type
9056	TL 147 - 770 (5) 1	Color a. natural b. colored (4)	black	reddish	dark brown to black	light brown	dark brown to black	brown	light brown	dark brown
9060 9061	TL 147 - 730 1	above 90°C	above 140°C	above 165°C	above 80°C	above 90°C	above 50°C	above 160°C	above 160°C	above 145°C
9095	TL 147 - 745 1	Homogeneity	Homogeneity	Homogeneity	Homogeneity	Homogeneity	Homogeneity	Homogeneity	Homogeneity	Homogeneity
9085	TL 147 - 750 1	below 1.5% wt.	below 2% wt.	below 1% wt.	below 4% wt.	below 1.5% wt.	below 1% wt.	below 1% wt.	below 1% wt.	below 1% wt.
9075	TL 147 - 740 1	below 3% wt.	below 2.5% wt.	below 1% wt.	below 2% wt.	below 4% wt.	below 0.5% wt.	below 2% wt.	below 2% wt.	below 5% wt.
9090 9091	TL 147 - 735 1	waterproof	waterproof	waterproof	waterproof	waterproof	waterproof	waterproof	waterproof	waterproof
9100	TL 147 - 755 1	250 (± 20)	335-350	280 (± 20)						
9080	TL 147 - 735 1	0° to 60°C	within the range of 0 to -40°C must be below the reference curve	0 to -50°C	0 to -50°C	0 to -50°C	0 to -50°C	0 to -50°C	0 to -50°C	0 to -50°C
9105	TL 147 - 745 1	below 2.5% wt.	below 0.5% wt.	below 0.5% wt.	below 0.5% wt.	below 3% wt.	below 1% wt.	below 1% wt.	below 1% wt.	below 1% wt.
9066	TL 147 - 730 1	Alkali number	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported	Value not limited, but mg HCl/g to be reported
9065	TL 147 - 740 1	Neutral number	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported	Value not limited, but mg KOH/g to be reported
	TL 147 - 710 and TL 6006 <sup>1</sup> of OKH-WA test	Storability	1 year	1 year	1 year	2 years	2 years	1 year	2 years	2 years

Remarks: The specifications for Special Aircraft Greases for the RLM (Issued June 1944) can be obtained from the Aviation Materials Test Office (o) 7 Staassfurt-Leopoldshall.

Acceptance tests by the Aviation Material Test Group are limited to tests having their numbers within the heavy border lines. WfO and the Aviation Material Test Offices carry out in addition shipping inspection tests included within the light lines.

- (1) For shipment or acceptance, Protective Grease 40 must also satisfy requirements of Spec. 9110, 9115 and 9120.
- (2) Inspection by the manufacturer also includes a test with the "Lorenz Testing Apparatus" according to Spec. 9130.
- (3) Spec. TL 147-901 is hereby cancelled.
- (4) Compare with RLM color chart. Also with Test Office 3 KL of the "Luftwaffe", Travemünde.

\* RLM = German Air Ministry.