

THE SHERWIN WILLIAMS CO

Cleveland, O.

June twenty-sixth

Nineteen-seventeen

Chief of Ordnance
War Department
Washington, D. C.

Attention: Col. E. B. Babbitt.

Referring to the conversation of the writer with your Colonel Babbitt, in connection with the matter of the specifications of paints for war helmets, we are pleased to give you the following recommendations for a satisfactory formula for the proper finish for these steel helmets, - basis 100 lbs:

25 lbs	Lithopone
1.5 "	O P Chrome Yellow L Dry
.75 "	O P Lamp Black
31.25 "	French Ochre
5. "	Magnesium Silicate
5. "	Raw Linseed Oil
5. "	Oil Drier
7.25 "	Spirits Turpentine
19.25 "	Petroleum Spirits (102 degrees Flash Point)
100	

This formula is a typical batch producing 112 gallons of paint would be made up as follows:

Lithopone	400 pounds
O P Chrome Yellow Dry	24 "
O P Lamp Black	12 "
French Ochre	500 "
Magnesium Silicate	80 "
Raw Linseed Oil	10 Gals.
Oil Drier	10 "
Spirits Turpentine	10 "
Petroleum Spirits	48 "

This material when properly prepared for use will in produce a paint of the right consistency for spraying purposes. If the helmets are to be dipped instead of sprayed, the material should be further reduced by the addition of 20% of either Spirits of Turpentine or Special Dipping Reducer.

You will recall that the Government formula read as follows: (basis 100 lbs)

34.3	lbs.	Carbonate of lead
1.7	"	Chrome Yellow Medium in Oil
4.3	"	Drop Black
24.4	"	French Ochre Dry
10.8	"	Exterior Rubbing Varnish
3.	"	Brown Japan
28.4	"	Turpentine

You will note that in the Government formula over 50% of the pigment portion is Carbonate of Lead, ~~while~~ while in the formula that we have suggested no Carbonate of Lead is used.

The paint produced on the formula we have suggested will bake perfectly and inasmuch as the formula contains a larger percentage of oil than specified by the Government, the resulting paint film will be tougher and will wear longer, and in using Lithopone instead of Lead there are the following advantages:

First: The danger of Lead poisoning is entirely eliminated.

Second: It is the desire of the Government to conserve the supply of Lead and this will be done by using Lithopone instead of Lead.

Third: Paint made upon the formula we have suggested will stay in suspension better in the dipping tank and will give better results when used as a paint spray than will the Government formula.

Fourth: The cost of Producing satisfactory paint on the formula we have suggested is fully 35% less than the cost of goods made on the Government formula.

In using a paint made up on the suggested formula we recommend baking the helmets at from 180 to 200 degrees Fahrenheit for from two to two and one half hours. If sand is to be applied to the helmets it may be sprayed directly on the last coat of paint before the final baking.

We are sending you by parcel post a small sample of the paint made up on the suggested formula and will be pleased to have you test this out under actual conditions. We shall be very glad to give you any further information concerning this material at any time and will be glad to know of any action you may take in regard to the matter.

Yours very truly,

THE SHERWIN WILLIAMS COMPANY
(signed) Adriant Joyce ??

ADJ-H

Gen'l Manager Sales & Dist'n.

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