

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 510

RED LEAD

1st EDITION

October 1966

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BRIEF HISTORY

The ISO Recommendation R 510, *Red Lead*, was drawn up by Technical Committee ISO/TC 35, *Paints, Varnishes and Related Products and their Raw Materials*, the Secretariat of which is held by the Nederlands Normalisatie-instituut (NNI).

Work on this question by the Technical Committee began in 1950 taking into account the studies which had been made by the former International Federation of the National Standardizing Associations (ISA) and led, in 1954, to the adoption of a Draft ISO Recommendation.

This first Draft ISO Recommendation (No. 32) was circulated to all the ISO Member Bodies for enquiry in March 1954. As the results of this consultation were not considered satisfactory, the Technical Committee successively put forward a second and a third Draft ISO Recommendation, which were circulated in August 1961 and in November 1963 respectively.

This third Draft was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Argentina	Denmark	Portugal
Australia	France	Spain
Austria	Germany	Sweden
Belgium	India	Turkey
Bulgaria	Indonesia	U.A.R.
Canada	Italy	United Kingdom
Chile	Japan	U.S.S.R.
Colombia	Morocco	Yugoslavia
Czechoslovakia	Netherlands	

No Member Body opposed the approval of the Draft.

The third Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in October 1966, to accept it as an ISO RECOMMENDATION.

RED LEAD

1. SCOPE

This ISO Recommendation establishes the more important requirements for three qualities of red lead and the methods of test for these requirements.

2. DEFINITION

Red lead. A red to orange-red pigment which consists of lead orthoplumbate (Pb_3O_4) and lead monoxide (PbO) in which no impurities other than those resulting during the course of normal manufacture are present.

3. REQUIRED CHARACTERISTICS AND THEIR TOLERANCES *

Red lead should have the following characteristics:

Property		Ordinary red lead	High percentage red lead (non-setting)	Dispersed red lead	Clause describing test method
Lead dioxide, min.	%	26	32.5	33.5	5.1
Lead orthoplumbate, min.	%	74.5	93.2	96.0	5.4
Sum of lead orthoplumbate and free lead monoxide, min.	%	99	99	99	5.4
Matter volatile at 105 °C, max.	%	0.3	0.3	0.3	5.5
Matter soluble in water, max.	%	0.3	0.3	0.3	5.6
Residue on sieve, max.	%	1.5	0.75	0.75	5.7
Oil absorption value		To be agreed between purchaser and vendor			5.8
Sedimentation volume, ** min.	ml	—	**	30 **	5.9
Non-setting properties		—	After exposure in air for 14 days, the mixture des- cribed in clause 5.10 should still be in a con- dition suitable for appli- cation by brush.		5.10

* All percentages are calculated from the original sample.

** High-percentage red lead and dispersed red lead differ, among other things, by the fact that the sedimentation volume of the latter is higher than that of the former.