



Standard Specification for Creosote-Coal Tar Solution¹

This standard is issued under the fixed designation D 391; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last approval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

^{e1} NOTE—Editorial changes were made in March 2000.

1. Scope

1.1 This specification covers creosote-coal tar solution for use in the preservative treatment of wood.

1.1.1 Test Method D 38 covers the sampling of wood preservatives prior to testing.

2. Referenced Documents

2.1 ASTM Standards:

D 38 Test Methods for Sampling Wood Preservatives Prior to Testing²

D 95 Test Method for Water in Petroleum Products and Bituminous Materials by Distillation³

D 168 Test Method for Coke Residue of Creosote²

D 246 Test Method for Distillation of Creosote and Creosote-Coal Tar Solutions²

D 347 Tables for Volume and Specific Gravity Correction for Creosote, Creosote-Coal Tar Solution and Coal Tar²

D 367 Test Method for Xylene-Insoluble Matter in Creosote²

D 368 Test Method for Specific Gravity of Creosote and Oil-Type Preservatives²

D 369 Test Method for Specific Gravity of Creosote Fractions and Residue²

D 370 Test Method for Dehydration of Oil-Type Preservatives²

3. Composition and Properties

3.1 Creosote-coal tar solution shall be a pure coal tar product derived entirely from tar produced by the carbonization of bituminous coal. It shall be either a coal tar distillate or a solution of coal tar in coal tar distillate, and shall conform with the requirements for the respective grades specified in Table 1.

4. Sampling and Test Methods

4.1 The material shall be sampled and the properties enumerated in this specification shall be determined in accordance with the following methods:

4.1.1 *Sampling*—Test Methods D 38.

4.1.2 *Water*—Test Method D 370, or as an alternative method, Test Method D 95.

4.1.3 *Xylene Insoluble Matter*—Test Method D 367.

4.1.4 *Specific Gravity*—Test Method D 368.

4.1.5 *Distillation*—Test Method D 246.

4.1.6 *Specific Gravity of Fractions*—Test Method D 369.

4.1.7 *Coke Residue*—Test Method D 168.

4.1.8 *Volume and Specific Gravity Correction*—Test Method D 347.

5. Keywords

5.1 coal tar; creosote

¹ This specification is under the jurisdiction of ASTM Committee D-7 on Wood, and is the direct responsibility of Subcommittee D07.06 on Treatments for Wood Products.

Current edition approved July 15, 1994. Published September 1994. Originally published as D 391 – 39 T. Last previous edition D 391 – 84.

This specification is essentially the same as the specifications for grades A, B, and C of the American Wood-Preservers' Association Standard for Creosote-Coal Tar Solutions (P2 – 68), except for the distillation range of used solutions. The marine grade table is not identical to the American Wood Preservers' Association Standard for Creosote-Coal Tar Solution to be used in the treatment of marine (coastal waters) piles and timbers (P12 – 68). Acknowledgment is made to the American Wood-Preservers' Association for its development of the subject matter covered in this standard.

² *Annual Book of ASTM Standards*, Vol 04.10.

³ *Annual Book of ASTM Standards*, Vol 05.01.

TABLE 1 Composition and Properties

	Land and Fresh Water Grades						Marine Grade	
	Grade A		Grade B		Grade C		Min	Max
	Min	Max	Min	Max	Min	Max		
Coal tar distillate, volume %	80	...	70	...	60	...	...	...
Specific gravity at 38°C compared with water at 15.5°C	1.06	1.11	1.07	1.12	1.08	1.13	1.090	...
Water, volume %	...	3.0	...	3.0	...	3.0	...	3.0
Xylene insoluble matter, weight % ^A	...	2.0	...	3.0	...	3.5	1.0	3.0
Coke residue, weight % ^A	...	5.0	...	7.0	...	9.0	4.0	7.0
Distillation—percentage of distillate by weight on water-free basis:								
Up to 210°C	...	5	...	5	...	5	...	...
Up to 235°C	...	25	...	25	...	25	...	5
Up to 270°C	...	...	...	...	...	...	20	15
Up to 315°C	36	...	34	...	32	...	35	35
Up to 355°C	60	...	56	...	52	...	55	50
Specific gravity of fractions at 38/15.5°C:								70
235 to 315°C	1.025	...	1.025	...	1.025	...	1.030	...
315 to 355°C	1.085	...	1.085	...	1.085	...	1.110	...
Specific gravity of distillation residue at 38/15.5°C	1.185	...

^A Due to treating operations.

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