

Reagent Specification**D1193 -91 REAGENT WATER**

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Scope

This specification covers requirements for water suitable for use in methods of chemical analysis and physical testing. Four grade s are specified:

Specifications by Water Type(I, II & III only)

ASTM

	Type I	Type II	Type III
Specific conductance (micromhos, max.)	<0.056	<1	0.25
Specific resistance (megohms, min.)	>18	>1	>4
Total organic carbon (mg/L, max.)	<100	<50	<200
Silicate (ug/L, max.)	3	3	500
Sodium (ug/L, max.)	1	5	10
Culture/colony count (colony forming units/mL)	*	*	*
pH in Type I II III eliminated			

Microbiological contamination: when bacterial levels need to be controlled.

Reagent grade water is further classified as: Type A Type B Type C Maximum heterotropic 10/1000 mL 10/100mL 100/10 mL bacteria count. Endotoxin, EU <0.03 0.25.

Method(s) of preparation of the various Grade(s) of Reagent Water determines the limits of impurities and shall be as follows:

Type I Grade of Reagent Water shall be prepared by distillation or other equal process, followed by polishing with a mixed bed of ion exchange materials and 0.2u membrane filter.

Feed Water to the final polishing step must have a maximum conductivity of 20 uS/cm at 25° C

Note: Because distillation is a process commonly relied upon to produce high purity Water, the levels specified for Type II Reagent Water were selected to represent the minimum quality of Water that a distillation process should produce.

Application: Manufacturing Water for On-Line Analyzer and High Purity Solutions and Titrants

Source specification from ASTM D1193-91 Reagent Water