



BS8458:2015 and BS9251

iMist™ System and Sprinkler System Comparison

No published document directly compares and cross-references the performance and effectiveness of a residential iMist watermist system designed to BS 8458: 2015 and sprinkler systems designed to BS 9251: 2021. Therefore, to assist specifiers we have put together this overview.

Table 2 of BS 9251: 2021 below shows the differences in the four different sprinkler categories.

BS 9251:2021

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Table 2 - Minimum design parameters

Category of System (See Table 1)	Minimum Design Discharge Density	Number of Design Sprinklers	Minimum Duration of Supply
	mm/min		min
1	2.10 ^A	1 or 2	10
2	2.80 ^B	1 or 2	30
3	2.80 ^C	2 or 4 ^D	30
4	2.80 ^C	2 or 4 ^D	60 ^E

iMist™ System Comparison Table

BS 9251 Sprinkler System	BS8458 iMist™ System	Maximum Design Heads	Duration of Supply (min)
1	Domestic STX 12-2	1 or 2	10
2	Domestic STX 12-2	1 or 2	30
3*	Domestic STX 12-2*	2	30
Category 3	Residential STX 12-5 (mains fed)	4	30
Category 3	Residential STX 12-6 (tank fed)	4	30
Category 4 (18m+)	Residential STX 12-7 (tank fed)	4	60

From the above it can be seen that:

A BS 8458 iMist Domestic watermist system exceeds the performance of a BS 9251 Category 1 sprinkler system.

A BS 8458 iMist Domestic watermist system matches the performance of a BS 9251 Category 2 sprinkler system.

A BS 8458 iMist Domestic watermist system matches the performance of a BS 9251 Category 3 sprinkler system* (provided the maximum number of design nozzles is 2).



A BS 8458 STX12-5 iMist Residential (single pump/mains fed) watermist system matches the performance of a BS 9251 Category 3 sprinkler system.

A BS 8458 STX12-6 iMist Residential (single pump/tank fed) watermist system matches the performance of a BS 9251 Category 3 sprinkler system.

A BS 8458 STX12-7 iMist Residential (twin pump/twin tank fed) watermist system matches the performance of a BS 9251 Category 4 sprinkler system.

Note: Further enhancements to systems are available upon request.