

PLIBRICO ENGINEERING *and* INSTALLATION DATA



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PNEUMATIC APPLICATION

During the past year a great number of experimental tests have been run which have resulted in a number of changes in the formulation of Plicast Products for pneumatic application, either via the wet method using a Refract-All type machine or the dry mix cement gun type of machine.

It is with pleasure that we are able to announce that the results of this research work has been most successful in greatly improving the pneumatic placement properties of Plicast products.

The following list of Plicast products are now formulated for pneumatic application:

* Plicast 15-R	Plicast Tuff-Mix G	Plicast 34
Plicast 40	Plicast L-W-I 20	
Plicast Steel-Mix	Plicast L-W-I 24-G	
Plicast Burner Set	Plicast Verilite G	
Plicast Petro-Mix	Plicast Air-Lite	

* Recommended for wet machine application only

This covers our entire line, pricewise and qualitywise of both dense and insulating castable materials. You should not attempt to pneumatically apply materials not listed above.

The following is a table of approximate weights to place one cubic foot:

<u>PRODUCT</u>	<u>WT. TO GUNITE 1 CU. FT.</u>		
	<u>Wet Machine</u>	<u>Dry Machine</u>	<u>Wt. in Service</u>
Plicast 15R	130 lbs.	Not recommended	125-130 lbs./cu.ft.
" 40	163 "	170 lbs.	155-160 " " "
" 34	145 "	152 "	132-137 " " "
" Steel-Mix	140 "	147 "	132-137 " " "
" Petro-Mix	125 "	132 "	118-125 " " "
" Tuff-Mix G	132 "	140 "	125-130 " " "
" Burner Set	123 "	130 "	115-120 " " "
" L-W-I 20	74 "	78 "	68-73 " " "
" L-W-I 24 G	95 "	100 "	90-95 " " "
" Verilite G	50 "	55 "	45-50 " " "
" Air-Lite	35 "	40 "	30-35 " " "

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The weight in service column includes the actual weight of material on the wall plus the weight of the water of hydration remaining in the material after it has been initially fired.

When using a dry mix machine, better results and less rebound loss are obtained if the mix is slightly dampened before introducing it into the machine.

The quantities listed above to apply one cubic foot include approximately 5% rebound for the wet mix machine and 10% rebound for the dry mix machine. We have found that this rebound will occur under optimum operating conditions, that is, experienced crews working on vertical walls applying material 4" to 5" thick. The figures also include compaction which is most noticeable on the lightweight insulating materials. Where conditions are not optimum, such as close working quarters, overhead application or thin wall application, the rebound will increase considerably and anywhere from 10% to 50% should be added to the above figures.

When applying Plicast materials pneumatically there is a 20 to 40% increase in the strength over that from poured application.

We do not recommend applying Plicast 15R with a dry mix machine because of the excessive amount of rebound that will occur. Certain components in the mix will rebound more than others with the result that the final product on the wall will not have Plicast 15R characteristics.

Do not attempt to pneumatically apply materials not listed above.

PLIBRICO COMPANY

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Tab 1, 2, 3