# INSULATING CASTABLES

| BRAND NAME | Maxlyte 4 | Maxlyte 7 | Maxlyte 8S | Maxlyte 9 | Maxlyte 10S | Maxlyte 11 |
|---|---|---|---|---|---|---|
| **GENERAL PROPERTIES** | | | | | | |
| **Features** | Very Light Weight, Low Thermal Coductivity | Light Weight, Low Thermal Coductivity | Light Weight, Low Thermal Coductivity | Light Weight, Low Thermal Coductivity | Medium Weight, Low Thermal Coductivity | Medium Weight, Low Thermal Coductivity |
| **Base Raw Materials** | Perlite, Vermiculite | Exfoliated Vermiculite | Perlite, Insulating Aggregate | Insulating Aggregate | Insulating Aggregate | Insulating Aggregate |
| **Installation** | Tamping | Tamping | Tamping | Tamping | Tamping | Tamping |
| **Shelf Life (months)** | 9 | 9 | 9 | 9 | 9 | 9 |
| **Maximum Service Temperature ($^0$C)** | 1000 | 1100 | 1300 | 1200 | 1100 | 1300 |
| **Maximum Grain Size (mm)** | 6 | 6 | 6 | 6 | 6 | 6 |
| **Water Required for Casting (%)** | 80-100 | 65-70 | 45-50 | 46-52 | 40-48 | 36-41 |
| **Delivery State** | Powder | Powder | Powder | Powder | Powder | Powder |
| **Packing in Polythene Bags (kg)** | 20 | 25 | 25 | 25 | 25 | 25 |
| **CHEMICAL ANALYSIS (wt%)** | | | | | | |
| **$Fe_2O_3$** | 10-12 | 7.0-8.5 | 0.8-1.0 | 4.5-6.0 | 4.5-6.0 | 3.2-3.8 |
| **PHYSICAL PROPERTIES** | | | | | | |
| **Bulk Density** (g/cc) after Drying at $110^0$ C/24h | 0.50-0.60 | 0.80-0.90 | 0.85-0.95 | 0.90-1.05 | 1.00-1.15 | 1.20-1.35 |
| **MECHANICAL PROPERTIES** | | | | | | |
| **Cold Crushing Strength** ($kg/cm^2$) | | | | | | |
| After Drying at $110^0$ C/24h | 3-5 | 12-15 | 25-40 | 15-20 | 20-40 | 30-40 |
| After Firing at $800^0$C/3h | 2-3 | 3-5 | 20-35 | 4-8 | 15-35 | 20-30 |
| After Firing at $1100^0$C/3h | - | 4-6 | 12-18 | 8-15 | 12-25 | 20-30 |
| After Firing at $1300^0$C/3h | - | - | 30-50 | - | - | 35-45 |
| **THERMAL PROPERTIES** | | | | | | |
| **Refractoriness** ($^0$C/OC) min. | - | 1337/12 | 1398/14 | 1349/13 | 1337/12 | 1398/14 |
| **Permanent Linear Change** (%): | | | | | | |
| After Firing at $800^0$ C/3h | -0.3 to -0.5 | -0.4 to -0.8 | -0.4 to -0.8 | -0.4 to -0.6 | ±0.8 | -0.2 to -0.5 |
| After Firing at $1100^0$ C/3h | -0.6 to -1.0 | -0.5 to -1.2 | ±0.5 | -0.2 to 1.0 at $1200^0$ C/3h | ±1.2 | -0.3 to -0.7 |
| After Firing at $1300^0$C/3h | - | - | ±1.5 | - | - | -1.5 to 1.0 |
| **Thermal Conductivity** (W/m.K) max: | | | | | | |
| At $800^0$C Hot Face Temperature | 0.25 | 0.35 | 0.35 | 0.45 | 0.40 | 0.50 |

**NOTES**

1) Mahakoshal does not warrant the accuracy, fitness for purpose or updates of any information disclosed herein. Specification of the products may change based on the geographical area to be supplied.
2) Data shown are based on average results of production samples and are subject to normal variation during individual tests.
3) Max. and Min. values are given separately for testing purposes.
4) The information contained herein are exclusive property of Mahakoshal.

# INSULATING CASTABLES

| BRAND NAME | Maxlyte 11 LI | Maxlyte 11LIZ | Maxlyte 13 | Maxlyte 13 LI | Maxlyte 15 | Maxlyte 15 LI |
|---|---|---|---|---|---|---|
| **GENERAL PROPERTIES** | | | | | | |
| **Features** | High Purity, Very Light Weight, Low Thermal Coductivity | Moderate Density, Low Thermal Coductivity | Light Weight, Low Thermal Coductivity | High Purity, Light Weight, Low Thermal Coductivity | Medium Weight, Low Thermal Coductivity | High Purity, Medium Weight, Low Thermal Coductivity |
| **Base Raw Materials** | Insulating Aggregate | Insulating Aggregate | Insulating Aggregate | Insulating Aggregate | Insulating Aggregate | Insulating Aggregate |
| **Installation** | Tamping | Tamping | Tamping | Tamping | Tamping | Tamping |
| **Shelf Life (months)** | 9 | 9 | 9 | 9 | 9 | 9 |
| **Maximum Service Temperature ($^0$C)** | 1350 | 1300 | 1350 | 1400 | 1350 | 1400 |
| **Maximum Grain Size (mm)** | 6 | 6 | 6 | 6 | 6 | 6 |
| **Water Required for Casting (%)** | 36-41 | 40-46 | 30-35 | 30-35 | 27-32 | 27-32 |
| **Delivery State** | Powder | Powder | Powder | Powder | Powder | Powder |
| **Packing in Polythene Bags (kg)** | 25 | 25 | 25 | 25 | 25 | 25 |
| **CHEMICAL ANALYSIS (wt%)** | | | | | | |
| **$Fe_2O_3$** | 1.5-2.0 | 0.8-1.2 | 3.2-3.6 | 1.4-1.8 | 3.0-3.5 | 1.4-1.8 |
| **PHYSICAL PROPERTIES** | | | | | | |
| **Bulk Density** (g/cc) after Drying at 110$^0$ C/24h | 1.20-1.35 | 0.95-1.05 | 1.40-1.50 | 1.40-1.50 | 1.55-1.65 | 1.55-1.65 |
| **MECHANICAL PROPERTIES** | | | | | | |
| **Cold Crushing Strength** (kg/cm2 ) | | | | | | |
| After Drying at 110$^0$ C/24h | 40-50 | 15-30 | 45-55 | 75-85 | 85-95 | 125-145 |
| After Firing at 800$^0$C/3h | 25-35 | 10-25 | 25-35 | 35-45 | 55-65 | 70-85 |
| After Firing at 1100$^0$C/3h | 25-35 | 8-20 | 25-35 | 35-45 | 55-65 | 70-85 |
| After Firing at 1300$^0$C/3h | 45-55 | 15-30 | 45-55 | 50-60 | 65-75 | 80-100 |
| **THERMAL PROPERTIES** | | | | | | |
| **Refractoriness** ( $^0$C/OC) min. | 1398/14 | 1398/14 | 1398/14 | 1430/15 | 1430/15 | 1430/15 |
| **Permanent Linear Change** (%): | | | | | | |
| After Firing at 800$^0$ C/3h | -0.2 to -0.4 | ±0.6 | -0.2 to -0.4 | -0.1 to -0.3 | -0.2 to -0.4 | -0.1 to -0.3 |
| After Firing at 1100$^0$ C/3h | -0.2 to -0.6 | ±1.0 | -0.3 to -0.7 | -0.3 to -0.6 | -0.3 to -0.6 | -0.2 to -0.6 |
| After Firing at 1300$^0$C/3h | -1.3 to 0.5 | -0.8 to -1.5 | -1.5 to 0.3 | -1.5 to 0.5 at 1350$^0$ C/3h | -1.5 to 0.5 | -1.4 to 0.5 at 1350$^0$ C/3h |
| **Thermal Conductivity** (W/m.K) max: | | | | | | |
| At 800$^0$C Hot Face Temperature | 0.55 | 0.40 | 0.55 | 0.60 | 0.65 | 0.70 |

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