

FR-20-100

Flame Retardants®

Chemical name:	Magnesium Hydroxide
Formula:	$Mg(OH)_2$
CAS Number:	1309-42-8
MW:	58.3

General & Use:

FR-20-100 is a high purity Magnesium Hydroxide, based on mineral raw material from the Dead Sea and special production technology. It is a non-halogen flame retardant with low smoke emission.

During the decomposition process no toxic or corrosive gases are generated. In addition, it is an excellent smoke suppressant and acid scavenger. Its high thermal stability (up to 340°C) enables its use in high performance polymeric formulations.

FR-20-100 is used in Polyolefins, Polyamides, PVC and other thermoplastic polymers. Common end applications are wires and cables, injected molded articles for electronics and home appliances.

There are three basic grades denoted as FR-20-100-S5, FR-20-100-S7, and FR-20-100-S10. The S5, S7 and S10 relates to surface areas of 5m²/gr, 7m²/gr and 10m²/gr respectively.

For health & safety matters please refer to the MSDS.

Typical Properties:

Appearance	white free-flowing powder
Assay (Wt. %)	99.5
Specific Gravity	2.36
Conductivity(μS/cm)	< 230
Loss on Drying at 105°C (Wt. %)	0.15
Calcium (as CaO) (Wt. %)	0.08
Silica SiO ₂ (Wt. %)	0.05
Iron (ppm)	35
Chlorides as Cl ⁻ (Wt. %)	0.05
Bulk Density (g/ml)	0.7 - 0.85
Sulfates as SO ₄ ⁻² (Wt. %)	0.2

Particle Size:

microns	S5	S7	S10
d ₅₀	1.8 - 2.2	1.45 - 1.8	1.1 - 1.4
d ₉₀	3 - 6	2.5 - 5	2 - 4

Surface Area:

	S5	S7	S10
(BET) m ² /gr	4-6	6-8	8.5-11

Thermogravimetric Analysis (10°C/min, air):

Weight Loss (%)	°C
2	370
5	385
10	402

Please note that the values indicated do not constitute specification limits. To obtain current specifications, refer to your local Sales Office/Representative or ICL-IP Head Office at address herein.

Storage and Handling:

Store in a dry, cool and well-ventilated area. Avoid exposure to moisture. Avoid exposure to heat and to sunlight

For more information please contact your local ICL office.

Visit our Website: www.icl-group.com

For more information about our products and to place an order, please contact one of our regional sales offices.

Head Office

ICL-IP Ltd.
E-mail: frinfo@icl-group.com

Europe

ICL-IP Europe B.V.
E-mail: fr.europe@icl-group.com

North America and Mexico

ICL-IP America Inc.
E-mail: fr.nam@icl-group.com

South America

ICL-IP Brasil Ltda.
E-mail: fr.sam@icl-group.com

Asia Pacific China

ICL-IP China
E-mail: fr.china@icl-group.com

Japan

ICL-IP Japan Ltd.
E-mail: fr.japan@icl-group.com

Other Asia Pacific

ICL-IP Asia Ltd.
E-mail: fr.asia@icl-group.com

Other parts of the World

E-mail: frinfo@icl-group.com

All information concerning this product and/or suggestions for handling and use contained herein are offered in good faith and are believed to be reliable as of the date of publication. However, no warranty is made as to the accuracy of and/or sufficiency of such information and/or suggestions as to the merchantability or fitness of the product for any particular purpose, or that any suggested use will not infringe any patent. Nothing herein shall be construed as granting or extending any license under any patent. Buyer must determine for itself, by preliminary tests or otherwise, the suitability of this product for its purposes, including mixing this product with other products. The information contained herein supersedes all previously issued bulletins on the subject matter covered.