




The expert in metallic pigments and powders

The background of the entire page is a close-up, high-magnification photograph of a pile of fine, dark grey aluminum powder. The powder has a granular, crystalline texture. A diagonal white line runs from the top left towards the bottom right, and a diagonal gold line runs parallel to it, slightly below and to the left. A large, semi-transparent gold trapezoidal shape is overlaid on the right side of the image, containing the main title text.

**Aluminium powders
and pastes for
building materials**



Aluminium grades for AAC (autoclaved aerated concrete) or lightweight concrete

AAC products are manufactured with cement, lime, sand, water, and aluminium. The air cell structure in the final AAC product is a result of the reaction of the aluminium.

Aluminium contributes to the insulating properties (ref. temperature; noise) of all types of AAC products (reinforced panels, blocks, insulation boards) which are also called porous concrete or lightweight concrete.

AAC products have over the years become increasingly lighter in accordance with the new building requirements and energy saving objectives.

AVL is specializing in the production of aluminium grades for aerated concrete since 1955. The AVL aluminium range cater to the different requirements of the industry, including the very latest requirements for the production of the lightest AAC products available on the market.

Please enquire on the range of AVL products available and based upon the required specifications, we will recommend the best suited aluminium grade.

Powders	Pastes	Blaine cm ² /g	D50 value µm	Apparent density g/cm ³	AAC type (density) kg/m ³		
					Light 250-300	Medium 400-550	Heavy 600-800
AM9	AM9/DEG/70-30	13500	23	0,17	•		
AM6	AM6/DEG/70-30	13500	28	0,16	•	•	
AM4	AM4/DEG/70-30	10000	40	0,16		•	•
AM1	AM1/DEG/70-30	9000	69	0,16			•
AQ9		18500	23	0,12	•		
AQ6		16500	27	0,12	•		
BTF9	BTF9/DEG1/70-30	16500	23	0,16	•		
BTF6	BTF6/DEG1/70-30	14500	27	0,16	•	•	
BTF4	BTF4/DEG1/70-30	12500	35	0,16		•	•
BTF1	BTF1/DEG1/70-30	9000	68	0,16			•
OTF9	OTF9/DEG1/70-30	16500	23	0,16	•		

Powders	Pastes	Blaine cm ² /g	D50 value µm	Apparent density g/cm ³	AAC type (density kg/m ³)		
					Light 250-300	Medium 400-550	Heavy 600-800
OTF6	OTF6/DEG1/70-30	15500	27	0,16	•	•	
OTF4	OTF4/DEG1/70-30	13500	35	0,16		•	•
OTF1	OTF1/DEG1/70-30	9000	69	0,16			•
OT9		15500	23	0,16	•		
OT6		14500	27	0,16	•	•	
OT4		10000	62	0,16		•	•
YM/9		13500	23	0,17	•		
YM/2		13500	28	0,16	•	•	
YT/9		15500	23	0,16	•		
YT/2		14500	28	0,16	•	•	

* isopropyl acetate / also available in ethyl acetate

User recommendations

- Aluminium grades with different specifications and coated with different additives are made available for the varying requirements and processes of the AAC industry.
- The most important characteristic of aluminium grades is the gas reaction which needs to be in total balance with the production process of each type of AAC product.
- Typically , coarse aluminium grades are being used in the production of heavier AAC products with a larger cell structure (500-800 kg/m³) while fine aluminium grades are being used for lighter AAC products with a smaller cell structure (250 -400 kg/m³).
- A combination of coarse and fine aluminium grades can be used to compensate for fluctuating elements (weather, ...) and will add flexibility in the total production process.
- The mixability and dispersion of aluminium grades in water is also key in the AAC production process .