



**CATALOGUE**  
TRADITIONAL CERAMICS



**VICAR** is a manufacturing company located in Manises (Valencia, Spain) that produces ceramic bodies. **VICAR** was formed in **1972**, by the merging of two family companies (Vila and Carpintero), who had been working since **1913** in the ceramic field.

# SERVICES

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**VICAR** offers not only ceramic compositions, but also specialized services about working methods and processes. **VICAR** offers to its customers:



## LABORATORY SERVICES ASSISTANCE



## PROCESS

Intensive mixing, wet ball milling, calcination, spray drying, filter-pressing and granulation



## ASSISTANCE

For the development and optimization of new products



## TECHNICAL ADVICE

On industrial processes and applied engineering



## PRODUCTS

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VICAR has two commercial lines of products: Traditional ceramic bodies and Technical ceramic bodies.

This catalog shows the standard products of Technical Ceramics, which include the following family products: electroceramics, alumina, steatites, cordierites, mullites, alumina, crucibles, 3D printing, refractory...

The main application areas of these products are: insulators, fuses, filters, high resistance alumina parts, valves, capillary tubes, lamp holders, burners, high tech coatings, sockets, spark plugs protectors, refractory kiln furniture, honeycombs ...

VICAR has many years of experience in the technical ceramics field, which has made us a specialist company in this sector on a national and international scale.

Our customers have a wide range of products at their disposal. The products are sold in different formats depending on the customer's needs:

**CRUSHED** *Material obtained by mechanical crushing. Size between 0 and 2 cm.*

**POWDER** *Fine granulated material obtained by dry mixing of micronized materials. Particle size between 0 and 1 mm.*

**SPRAY DRIED POWDER** *Powdered material obtained by spray drying. Granules between 0 and 0.5 mm.*

**PLASTIC MASS** *Wet material in the form of plastic mass obtained by filter pressing.*



## CUSTOMIZED PRODUCTS

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VICAR not only offers its standard products, but also offers its customers the possibility of developing new compositions based on their requirements. VICAR studies new products and prepares samples so that the client can test and validate them.

VICAR manufactures these products based on orders with minimum quantities for production to be feasible. Please contact us if you are interested in compositions with specific parameters, we will be happy to help you.



# MAJOLICA LOW FIRE - EARTHENWARE

This group offers several calcareous compositions with a recommended firing temperature between 950°C and 1.100°C. These materials are supplied in spray dried powder, casting slip or plastic body.

They are porous ceramic bodies, suitable for general use in double firing processes and allow every kind of decoration: painted under and on glaze, decals, gold, lustres...

All of them are updated and optimized compositions of ancient calcareous majolica, in which the city of Manises became famous for the quality of its ceramics



NAME	COLOUR	FIRING TEMPERATURE RANGE °C	WATER ABSORPTION %	TEC (25°-300°) 10 <sup>7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
EUROPA-AT		1020-1060	16-26	72-77	Casting and uniaxial pressing	S	Good plasticity. Suitable for traditional pottery
SUPER-MP		1020-1060	19-24	72-77	Modelling, throwing, extrusion, pressing	M	Good plasticity. Suitable for artistic modelling and traditional pottery
LOZA-MP		1050-1100	10-13	68-73	Pressing and extrusion	M	Resistant and suitable for tableware
LOZA -AT		1050-1100	12-17	68-73	Casting and uniaxial pressing	S	Resistant and suitable for tableware
LISTELOS-AT		1020-1060	15-20	66-71	Uniaxial pressing	S	Good for tiles, friezes and decorative borders. Suitable for fast firing and traditional firing
LISTELOS-MP		1020-1060	19-23	66-71	Throwing, extrusion, pressing	M	Good for tiles, friezes and decorative borders. Suitable for fast firing and traditional firing
MIMBRE-MP		1020-1060	19-24	72-77	Pressing and extrusion	M	Good plasticity. Suitable for artistic modelling and traditional pottery
CENEFAS-MP		1020-1060	18-23	67-72	Pressing and extrusion	M	Good for tiles, cenefas and listelos. Suitable for fast firing and traditional firing.
BARROCO-AT		1000-1150	0-15	73-84	Casting and uniaxial pressing	S	Red casting clay for general purposes
SANGIL-MP		950-1000	8-15	66-71	Modelling, throwing, extrusion, pressing	M	Red clay for general purposes
TAJINE-MP		950-1000	14-18	50-55	Modelling, throwing, extrusion, pressing	M	Very fine grogged clay. Suitable for low temperature cookingware
MAYOLICA -CH-MP		1020-1060	17-22	64-69	Modelling, throwing, extrusion, pressing	M	0-0,6 mm grogged majolica Good plasticity
FAENZA-MP		1020-1060	19-23	74-79	Modelling, throwing, extrusion, pressing	M	Good plasticity. Suitable for artistic modelling and traditional pottery

# STONEWARE

Stoneware is a dense ceramic, fired at high temperatures and is more durable than earthenware.

Earthenware is mainly composed of clays, quartz and feldspar. Their main features are their strength and low water absorption, when it's fired at the corresponding sintering temperature.

We offer a wide range of stoneware bodies for casting, throwing, pressing, with grog or without grog. We also have low firing temperature stonewares like VITREO-GRES-AT or VITREOGRES-MP, medium firing temperature like GRES-ALBA and high firing temperature like GRES-ART13-AT or GRES-130-MP. Finally, we have our GROGGED STONEWARES and our REFRACTORY body.



NAME	COLOUR	FIRING TEMPERATURE RANGE °C	WATER ABSORPTION %	TEC (25°-300°) 10 <sup>7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
VITREO GRES-C-AT		1050-1100	0-5	62-67	Casting and uniaxial pressing	S	Low firing stoneware for casting
VITREO GRES-MP		1050-1100	0-5	64-69	Modelling, throwing, extrusion, pressing	M	Low firing stoneware for casting
GRES ALBA-AT		1120-1170	0-2	55-60	Casting and uniaxial pressing	S	Medium firing stoneware for casting
GRES ART13-AT		1230-1280	0-2	57-62	Casting and uniaxial pressing	S	Casting stoneware for general use
GRES-130-MP		1230-1280	0-2	57-62	Modelling, throwing, extrusion, pressing	M	Good plasticity. Stoneware for general use.
GRES-CH FINO-MP		1230-1280	0-2	55-60	Modelling, throwing, extrusion, pressing	M	0-0,6 mm grogged stoneware.
GRES-CH GRUESO-MP		1230-1280	0-3	55-60	Modelling, throwing, extrusion, pressing	M	0-2 mm grogged stoneware
GRES A4-MP		1200-1300	7-12	47-52	Modelling, throwing, extrusion, pressing	M	0-0,3 mm grogged clay. Very good plasticity. Suitable for general use and RAKU
GRES A5-MP		1200-1300	7-12	47-52	Modelling, throwing, extrusion, pressing	M	0-1 mm grogged clay. Very good plasticity
REFRACTARIA MP		1200-1300	7-12	47-52	Modelling, throwing, extrusion, pressing	M	0-2 mm grogged clay
COR MIK-MP		1200-1250	5-12	25-30	Modelling, throwing, extrusion, pressing	M	Brown fired cordierite stoneware. Suitable for high resistance to thermal shock parts.
COR FLAM-MP		1240-1280	7-12	21-26	Modelling, throwing, extrusion, pressing	M	0-0,3 mm grogged stoneware. Very good resistance to direct flame. Suitable for cookingware
GRES BURELA-AT		1220-1270	0-2	58-63	Casting and uniaxial pressing	S	Stoneware suitable for tableware
GRES BLANC 1320-MP		1270-1320	0-4	80-85	Modelling, throwing, extrusion, pressing	M	Good plasticity. Stoneware for general use.

# PORCELAIN

Porcelain is a ceramic material, traditionally white. It's compact, tough, translucent, waterproof and highly resistant to chemical attack and thermal shock. Porcelain is used to manufacture various products such as tableware, lamps, sculptures, ornamental and decorative elements.

For industrial applications (insulators, electroceramics) please take a look at our Technical Ceramics catalogue. Over the years, and thanks to our R&D department, we have developed a brilliant white porcelain, as well as optimal glazes for these porcelains.

NAME	COLOUR	FIRING TEMPERATURE RANGE °C	WATER ABSORPTION %	TEC (25°-300°) 10 <sup>-7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
<b>POR-O3C-AT</b>		1230-1280	0	53-58	Pressing and extrusion	<b>S</b>	Good plasticity casting porcelain for general use
<b>POR-SW17P-AT</b>		1170-1220	0	54-59	Pressing and extrusion	<b>S</b>	Porcelain suitable for photoceramics.
<b>PORCELANA-MP</b>		1250-1300	0 - 1	52-57	Modelling, throwing, extrusion and pressing	<b>M</b>	Good plasticity for hand modelling
<b>POR-FCM2-AT</b>		1150-1200	0	49-54	Pressing	<b>S</b>	Extra white low firing porcelain for pressing
<b>POR-AV4-AT</b>		1150-1180	0	45-50	Casting	<b>S</b>	Extra white low firing porcelain for casting
<b>POR-DM5P-AT</b>		1350-1380	0	50-55	Pressing	<b>S</b>	White hard porcelain for tableware
<b>POR-SAR22-AT</b>		1360-1400	0	42-47	Casting	<b>S</b>	White hard porcelain for tableware

**S** Spray dried powder    **M** Plastic mass



# CERAMIC BODIES FOR TILES



NAME	FIRING TEMPERATURE RANGE °C	WATER ABSORPTION %	TEC (25°-300°) 10 <sup>7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
LISTELOS-AT	1020-1060	15-20	66-71	Uniaxial pressing	S	Good for tiles, friezes and decorative borders. Suitable for fast firing and traditional firing
LISTELOS-MP	1020-1060	19-23	66-71	Throwing, extrusion, pressing	M	Good for tiles, friezes and decorative borders. Suitable for fast firing and traditional firing
CENEFAS-MP	1020-1060	18-23	67-72	Throwing, extrusion, pressing	M	Good for tiles, friezes and decorative borders. Suitable for fast firing and traditional firing
VITREOGRES-C-AT	1020-1060	0-5	62-67	Casting and uniaxial pressing	S	Low firing stoneware for casting
KACH-MP7-AT	1050-1100	14-18	65-70	Extrusion, pressing	S	Grogged ceramic body suitable for stove tiles (Kachelofen)
AZULEJOS 15,1 x 15,1 cm	1020-1060	12-17	66-71	-	Z	White Biscuit tile

S Spray dried powder  
 M Plastic mass  
 Z Tile



# CERAMIC BODIES 3D PRINTING

Our best compositions adapted for 3D printing techniques. Supplied in spray-dried powder with optimised particle size distribution for the additive manufacturing of 3D objects.

We have four ceramic compositions for this type of shaping: majolica, porcelain, stoneware and refractory cordierite.



NAME	FIRING TEMPERATURE RANGE °C	WATER ABSORPTION %	TEC (25°-300°) 10 <sup>-7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
REF-3D-AM	1200-1250	5-12	25-30	3D printing	S	Refractory cordierite. Depurated powder suitable for 3D printing
MAY-3D-AM	1020-1060	19-24	66-71	3D printing	S	Low fire ceramic body. Depurated powder suitable for 3D printing
POR-3D-AM	1250-1300	0-1	52-57	3D printing	S	Porcelain ceramic body Depurated powder suitable for 3D printing
GRES-3D-AM	1230-1280	0-2	57-62	3D printing	S	Stoneware ceramic body Depurated powder suitable for 3D printing

**S** Spray dried powder



# ENGOBES AND GLAZES ARTISTIC

VICAR offers spray-dried engobes that can be used for general purposes. It's also possible to add some glazes and/or ceramic colours.

This table shows engobes and glazes for artistic applications.

NAME	FIRING TEMPERATURE RANGE °C	TEC (25°-300°) 10 <sup>7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
ENGOBE BISBAL-AT	950-1150	65-70	Engobing	S	White engob with deffloculant for pottery and biscuit
ENGOBE AUBAGNE-AT	950-1150	65-70	Engobing	S	White engob without deffloculant for pottery and artistic tiles
ENGOBE SAFI-AT	1020-1060	66-71	Engobing	S	White engob without deffloculant for pottery and artistic tiles Calcareous engob
ENGOMAR AT	950-1150	65-70	Engobing	S	Yellow engob for pottery and artistic tiles.
ENGOBE ECF-NE35-AT	1230-1280	-	Engobing	S	Black colour glossy engob for stoneware
ENGOBE ECF-MA34-AT	1230-1280	-	Engobing	S	Dark brown glossy engob for stoneware
ESMALTE PORCELANA Nº2-AT	1250-1300	48-53	Glazing	S	Transparent glossy glaze for porcelain
ESMALTE PORCELANA Nº4-AT	1360-1400	45-50	Glazing	S	Transparent glossy glaze for porcelain

**S** Spray dried powder



## ENGOBES BRICK AND ROOF TILE INDUSTRY

VICAR offers spray-dried engobes that can be used for general purposes.

It's also possible to add some glazes and/or ceramic colours. This table shows engobes for the tile/brick industry.

NAME	FIRING TEMPERATURE RANGE °C	TEC (25°-300°) 10 <sup>7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
ENGOBE BISBAL-AT	950-1150	65-70	Engobing	S	White engob for pottery and artistic tiles
ENGOBE AUBAGNE-AT	950-1150	64-69	Engobing	S	White engob without defloculant for pottery and artistic tiles
ENGOBE SAFI-AT	1000-1100	66-71	Engobing	S	White engob without defloculant for pottery and artistic tiles Calcareous engob
ENGOMAR-AT	950-1150	65-70	Engobing	S	Yellow engob for pottery, artistic tiles and bricks

**S** Spray dried powder



## ENGOBES REFRACTORY INDUSTRY

NAME	FIRING TEMPERATURE RANGE °C	TEC (25°-300°) 10 <sup>7</sup> K <sup>-1</sup>	MANUFACTURING METHOD	FINAL PRODUCT	DESCRIPTION
PINKENGOBE AT	1000-1200	-	Engobing	S	Refractory engob for protection of refractory parts
BLUENGOBE AT	1200-1400	-	Engobing	S	Refractory engob for protection of refractory parts

**S** Spray dried powder



# CAOLIN AND CLAYS CRUSHED AND SPRAY DRIED

**VICAR** offers clays and caolin, available in 25 kg bags, Big Bags or in a tanker truck. These clays keep a constant humidity percentage (between 8-10%). They are suitable for engobes, glazes, and ceramic colours.

NAME	DESCRIPTION	FINAL PRODUCT
<b>CAOLIN-CFK-TR</b>	Caolin suitable for engobs, porcelain and sanitaryware Very good rheology and whiteness	T
<b>CAOLIN-CFK-PO</b>	Caolin suitable for engobs, porcelain and sanitaryware Good rheology and whiteness	P
<b>ARGI21-TR</b>	Clay suitable for engobs, sanitary, tiles and refractory Very good rheology and whiteness	T
<b>ARGI-123-TR</b>	Clay suitable for engobs. High plasticity and good whiteness Low sintering temperature	T
<b>ARC-LMX-TR</b>	Suitable for engobs and refractory compositions Very good rheology and whiteness	T
<b>ARC-LMX-AT</b>	Suitable for engobs and refractory compositions Very good rheology and whiteness	S
<b>ARC-NARANJA-AT</b>	Suitable for engobs Good plasticity Orange fired colour	S
<b>ARC-BLANCA-AT</b>	Suitable for engobs, porcelain and sanitaryware Good rheology and whiteness	S

**T** Crushed   **P** Powder   **S** Spray dried powder





**50 YEARS  
AT THE SERVICE  
OF CERAMICS**

*“ Among the arts, I know none more adventurous, more uncertain and therefore more noble, than the ones which require the use of fire ”*

**Paul Valéry**



**50 YEARS  
OF EXPERIENCE  
IN CERAMICS**



+ (34) 961 545 100



[www.vicar-sa.es](http://www.vicar-sa.es)



[vicar@vicar-sa.es](mailto:vicar@vicar-sa.es)



Calle Rosas 3, 46940 Manises (Valencia)