

S.C. ANVIDOR S.R.L.

ROMANIA

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www.naturaltufa.com

A N V I D O R Ltd. (S.C. ANVIDOR S.R.L.) is a romanian company, was founded in 2003 Initially focused on construction, this family owned business expanded to include excavation of calcareous tufa rock in 2007. Currently, our product includes calcareous tufa stone which is an ornamental decorative rock that is ideal for landscaping projects, green spaces, ponds, waterfalls, etc and irregular natural tufa tiles which is typically used in interior and exterior walls. In addition to their wonderful texture and color, tufa tiles are thought to be ideal as a " natural treatment " for walls with high humidity as they effectively manage damp environments.

Tufa's unique elements and warm colors provide new and unique decorative uses of natural stone, allowing for the creation of innovative and original style.

Our major objective is to have every corner of your home, and beyond, decorated with at least one piece of this material.



LOGO : " WATER PASSES BUT THE STONES REMAIN "

ABOUT CALCAREOUS TUFA :

On the market, Tufa is know as volcanic tufa, which is a rock formed by the accumulation and consolidation of ash, sand, etc., from volcanic eruptions. The color ranges from pale white to dark gray, has a high SiO₂ content, and is used in large scale (55%) in the cement industry;

Calcareous Tufa (pronounced "toofa") is formed when water evaporates from lime-rich waters, leaving calcite (calcium carbonate) to crystallize, often with impurities of iron oxides (rust), which give tufa its yellow and red coloration. It is formed on cliffs, caves and quarry faces where limestone is naturally occurring.

Tufa's extraordinary qualities and the role tufa has in the environment when combined with water, is explained in detail at - [prof. N.N.TOMONIU – in fenomenul Tismana](#) .

FACTS ABOUT TUFA :

- Calcareous Tufa is a variety of limestone, formed by the precipitation of carbonate minerals from ambient temperature water bodies.
- Geothermally heated hot springs sometimes produce similar (but less porous) carbonate deposits known as travertine. Tufa is sometimes referred to as 'meteogene' travertine (care must be taken when searching through literature to prevent confusion with hot spring 'thermogene' travertine).
- Calcareous tufa should not be confused with tuff, a porous volcanic rock with parallel etymological origins.
- Karstification can be considered as the result of natural process of dissolution of soluble rock in which the role of the solvent is water.
- The color is light cream to white light, sometimes slightly greenish red depending on oxides it contains.
- Tufa has the following physical, mechanical and chemical characteristics (results of laboratory tests carried out in authorized laboratory PROCEMA RESEARCH Bucharest are) :

Chemical analysis and pH:		Physical - mechanical analysis :	
	%		%
SiO ₂	0,85	Densitaty	- 1,50 g/cm ³
Al ₂ O ₃	1,94	Porosity	- 32,75 %
Fe ₂ O ₃	0,48	Compressive strength	- 1,74 N/mm ²
CaO	52,23	Dry state thermal conductivity	- 0,55 W/mK

MgO 0,20 Water absorption - 21,83 %
Na2O 0,28
K2O 0,16
pH = 7

• Due to its porosity and absorption, calcareous tufa is waterproof (especially calcareous tufa tiles mounted on areas with high humidity, water absorbs and dissipates in its pores, leaving surfaces completely dry), thermal and phonic insulation .

Our main products from this special rock, Calcareous tufa are :

- 1. - tufa tiles in different dimensions between 3-5 cm thickness**
- 2. - flower pots - decorative blocks of different shapes and sizes**
- 3. - granulates for mortar and concrete (powder delivered in the bag or in bulk).**

In our area of the world, homes have been built with blocks of tufa for the last since 100 years ago. These homes are very cool in the summer and warm in winter , due to the porosity which allows the material to heat in a very short time.

Tufa in time



For relevance, we present a picture where you will see the behavior of Tufa rock while other material like " marble" , the last one being harder than tufa , where have occurred cracks and entered the water, finally breaking, while the tufa material acting as a " flexible " material , he is untouched by time , after hundred years .

Today it is time we look back to these decorative material, ecological, esthetic - Romanian ancient-looking stone, used since ancient times and has successfully resisted, until now.

Due to its porosity it is actually a " flexible " material(rock) as hardness but most importantly the water does not degrade it because tufa absorbs water and dries at the same time; very low temperatures and frost does not affect them in any way from other materials such as marble, granite, limestone etc. which cracks and water action, while cracking or flaking.

1. T U F A T I L E S

Natural Tufa stone is a type of limestone which forms in close proximity to bodies of water with a high content of dissolved minerals, especially calcium carbonate. Natural Tufa has had many uses over the centuries including use as a building material with two basic criteria pursued in architectural decorations : the visual impact and friendly atmosphere.



Due to its porosity, high power absorption and drying, calcareous tufa tiles treat and remove " dampness" and humidity , is one of the old and new at the same time, natural building material. At thicknesses greater than 5 cm is a very good insulating material . Tufa tiles can be used both interior (walls, columns, pillars, basements, cellars ,fireplaces, because this material remove moisture from house walls and keep the air dry naturally and not as humid in most cases, especially if homes are not heated in winter) as well as outside, to tiling walls, pedestals, fences, basements, etc. ..

Refined appearance, with notes of antique value, given the texture, color and shape of stone, makes this type of natural stone to become a work of art , like mosaic tiles .

Tiling plates are made using a flexible adhesive stone, perfect white, that by adding color pigments the mortar can be in tone color with tufa tiles color , then grouting is no longer necessary

2. CALCAREOUS TUF - FLOWER POTS

Calcareous tufa material is really surprising because of its multiple-use landscape projects .

Our product : flower tufa pots - addresses lovers of flowers, arrangement of courtyards and gardens, alleys and public spaces, hotels, restaurants, bars, office, etc.. Natural rock gardens large and small are ready for planting. Tufa stone is the only stone that supports the growth of plants and minerals providing them also ;



WHY THE flower tufa pots ? From other planting containers and decorations?

Tufa stone creations that differs from all other products on the market because:

- Are organic, natural, lighter, up to 40% by weight than any rock and concrete, while an aspect gets old, antique, patinated as if there had been for centuries - giving a noble place where they are located ;
- Support the growth of succulent plants , no special maintenance for moss and lichens, they have porous walls which act as a reservoir for water that plants can use during the dry summer;

- Can withstand harsh winters, at least down to - 30C, so no need to bring them home for the winter;
- Will not break like the plastic, clay and ceramics,
- Lasting for decades;
- Retain moisture, so plants grow, even with less frequent watering for that reason I love plants
- Each piece is unique,

The models we make are 1 - 2 - 3 or more vats, because we thought we'd offer something special in the sense that 1 or 2 tanks are planted with seasonal plants to resist the rest of alpine plants in winter So always be with plants.

Tufa granulates has many uses:

1. A land for flowers

Because of their specific porosity and low weight , tufa are commonly used in the production of vegetables and ornamental plants, mixed with peat simple. Peat moss is a very good substrate for a short term but is not recommended to use because it has a pH too acid for some species and a low in essential nutrients proper plant development. Excessive watering, too much peat moss has a capacity of water retention, promoting rot roots. It is therefore recommended to be used in blends with tufa granulate that combats acidity and excessive watering over, tufa absorbs excess water, leading to dry mixture. Environment and culture training, culture substrates specific for vegetables and flowers to protect the environment when mixed with organic compounds of different types and sizes, ideal for sowing in different degrees.

Cultures : tufa granulate , because of its rich in calcium and pH = 7, is used in the cultivation of ornamental species (roses, gerbera, liliium, anthurium.) and horticultural cultures ; species of vegetables (tomatoes, melons, zucchini)

2. Agricultural amendment for acid soil

Category : Improving hydrological terrain features, persistent and / or too sandy, loose, too arid for cultivation of high-income land (plantation of vineyards, olive plantations, horticulture, etc. ...).

3. Layer filter for green spaces

Green spaces for which the tufa granulate can be used successfully are:

- Sports grounds
- ECO-FRIENDLY PARKING
- grass green roofs
- Ornamental garden area

The choice of substrates suitable for construction and maintenance of a green surface area or not based on technical and economic considerations.

A "green area" shall have the following characteristics:

- be very well drained in the first place - this property is only guaranteed by the use of inert materials such as river or quarry sand and / or gravel of different sizes and nature, arranged in layers, but not enough drainage , especially in those types of uses, in which cars shift is continuous, the surface tends to become fully waterproof - recommendation tufa granulates
 - be a rigid surface, using means of transport more or less heavy, require the surface of the substrate must be due to the absorption properties and stability, which finally give the surface - tufa granulates recommendation
- Due to the exceptional qualities of calcareous tufa and its power of absorption, retention and rapid filtration, we recommend it as a very good filter substrate - dry land from surface to depth, leaving the layer of fresh grass, without the common phenomenon " excess water instead. "

4. Added to insulating mortar, anti-damp and condensation

Construction Material : lightweight aggregates, prefabricated construction material for the inert nature in an ecological manner with characteristics of waterproof mortar , insulated, sweat, fire resistant.