THE BAUFRITZ VISION – HEALTHY, CARBON POSITIVE HOMES

Natural homes, organic living

WELCOME TO BAUFRITZ

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MULTI-AWARD WINNING GERMAN COMPANY

FOUNDED IN 1896

FAMILY RUN

FIRST PREFABRICATED HOMES BUILT IN 1979

PIONEERS OF HEALTHY AND ECOLOGICAL BUILDING METHODS

OUR CHOICE OF MATERIALS AND SYSTEMS IS BASED ON OUR PHILOSOPHY OF BUILDING BIOLOGY

TODAY BAUFRITZ IS AN INNOVATIVE LEADER IN MODERN METHODS OF CONSTRUCTION BUT THE TRADITIONAL VALUES REMAIN

GREEN CREDENTIALS

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BAUFRITZ
SEIT 1896.

- TIMBER FROM SUSTAINABLE FORESTS IN EUROPE
- ENERGY EFFICIENT MANUFACTURE
- CARBON POSITIVE
- THERMALLY EFFICIENT
- NATURAL MATERIALS - 99.9% BIODEGRADEABLE
- TOXIN FREE
- HEALTHY HOMES

ACCREDITATIONS

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Achievements in highest quality construction

1995
Ernst-Pelz-Prize
for services to promote the use of sustainable raw materials
C.A.R.M.E.N.

1997
B.A.U.M. Environmental Prize for sustainable management

1995
Hubert Fetz - Ecological Manager Germany
Capital

2001
Holzkreativ Prize for the wood shaving insulation material HOIZ 545
BUND

2003
Bavarian Quality Prize

The highest possible evaluation, from as early as 1995
ÖKO-TEST

IGEF Seal of Approval for fund-E electrosmog protection plate

Quality certified annually since 1998
ZDH ZERT
DIN EN ISO 9001:2000

Regular testing of environmental operation, compliant with the EMAS II standard, since 1996
EMAS

2002
Bavarian Environmental Medal

1983
State of Bavaria Gold Medal

Ecological wooden house suitable for allergy sufferers
ALÖKH Aö

European Seal of Biological Quality for the wood shaving insulation material HOIZ 545

RAL Seal of Quality for outstanding achievement in the construction of prefabricated houses

ACCREDITATIONS

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(HYDROTOX)

IN 1997 OUR CONSTRUCTION UNDERWENT ECOLOGICAL TOXICOLOGICAL EXAMINATION BY THE COMPANY HYDROTOX IN FREIBURG. OUR FAÇADE PAINT, SEALING MATERIALS, WINDOW FLASHINGS, ROOF TILES, HOIZ S45 WERE EXAMINED FOR POSSIBLE TOXINS IN A THREE-STAGE BIOLOGICAL TESTING PROGRAMME.

(NATUREPLUS)

IN 2002, OUR WOOD SHAVING INSULATING MATERIAL HOIZ S45 WAS CERTIFIED AS COMPLIANT WITH THE NEW EUROPEAN BIO-QUALITY SEAL FOR BUILDING MATERIALS 'NATUREPLUS'.

(ALLÖKH)

SINCE 2000, WE HAVE WORKED WITH THE INSTITUT FÜR UMWELT UND GESUNDHEIT (IUG) *[INSTITUTE FOR ENVIRONMENT & HEALTH]* WITH THE AIM OF OPTIMISING OUR DESIGN WITH REGARD TO ALLERGIES. FOR THIS, PROF. FRIEDHELM DIEL ANALYSED AND OPTIMISED BAUFRITZ RAW MATERIALS IN TESTING CHAMBERS. THE RESULTS LED TO NEW CONSTRUCTIONS AND THE CERTIFICATION OF AN ECOLOGICAL WOODEN HOUSE SUITABLE FOR ALLERGY SUFFERERS (ALLÖKH).

ACCREDITATIONS

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(ÖKO TEST)
BECAUSE OF ITS EXCELLENT ECOLOGICAL AND BUILDING BIOLOGY CHARACTERISTICS, E.G. LOW PRIMARY ENERGY REQUIREMENT IN MANUFACTURE, DECENTRALISED AVAILABILITY OF RAW MATERIALS, GOOD ABSORPTION QUALITIES, USE OF RENEWABLE RAW MATERIALS, NO PROBLEMATIC ADDED MATERIALS, VERY GOOD INSULATING CHARACTERISTICS, EXCELLENT SUMMER INSULATION CHARACTERISTICS, AND THE ABILITY TO BE RECYCLED, OUR INSULATING MATERIAL HOIZ S45 WAS RECOMMENDED BY THE GERMAN ECOLOGICAL TESTING MAGAZINE ÖKO TEST AS EARLY AS 1995.

(L.A.U.S.)
IN 2001, THIS FURTHER DEVELOPED THE MONITORING OF HAZARDOUS SUBSTANCES INTO TRUE BUILDING SITE MONITORING, IN WHICH, AS WELL SCREENING FOR VOCS AND FORMALDEHYDE, TESTS FOR WOOD PRESERVERS IS CARRIED OUT. THIS PROCESS WAS DEVELOPED TOGETHER WITH THE L.A.U.S. ANALYSIS LABORATORY IN NEUSTADT ON THE WEINSTRASSE AND ADAPTED TO THE SPECIAL CONDITIONS ON BUILDING SITES.

CARBON POSITIVE

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AVERAGE BAUFRITZ HOUSE IS 50 TONNES CARBON POSITIVE

ON AVERAGE 50 TONNES MORE $C0_2$ IS LOCKED AWAY IN EVERY BAUFRITZ HOME THAN IS EMITTED DURING ITS MANUFACTURE AND CONSTRUCTION.

THIS IS DUE A NUMBER OF FACTORS:

- TIMBER STORES CO_2 AND THIS IS THE PRINCIPLE MATERIAL
- USE OF NATURAL MATERIALS WITH LOW EMBODIED ENERGY
- EFFICIENT METHODS OF MANUFACTURE AND CONSTRUCTION
- USE OF WASTE (WOOD SHAVING INSULATON) AS PART OF CONSTRUCTION

IF EFFICIENTLY RUN ONCE OCCUPPIED THE HOUSE WILL TAKE AROUND 78 YEARS TO REACH THE CARBON NEUTRAL STAGE

CARBON POSITIVE

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USE PROFESSOR KOENIG'S INDEPENDENT, ACCREDITED CALCULATION METHOD TO ESTABLISH THE CARBON POSITIVE BALANCE IN EVERY HOME

FIRST PREFABRICATED MANUFACTURER IN GERMANY TO BE AUDITED BY EMAS BACK IN 1996

SINCE THEN BAUFRITZ HAS UNDERGONE REGULAR ENVIRONMENTAL TESTING IN COMPLIANCE WITH THE NEW EMAS II STANDARD.

THE KEY ELEMENT OF THIS MANAGEMENT SYSTEM IS CONTINUOUS IMPROVEMENT IN THE FIELD OF ENVIRONMENTAL PROTECTION.

HEALTHY LIVING

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COMFORT IS DEFINED BY:

- OUR STATE OF HEALTH
- OUR CLOTHING
- OUR ACTIVITIES AND MOVEMENT
- NOISE LEVELS
- THE AIR QUALITY (COMPOSITION, VOCS, MVOCS, ODOURS, IONISATIO OF THE AIR)
- VENTILATION
- ELECTRONIC CLIMATE
- HUMIDITY
- AIR MOVEMENTS
- TEMPERATURE

HEALTHY LIVING

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IN WINTER POOR INSULATION MEANS LOWER TEMPERATURE ON INSIDE SURFACES SO ROOM TEMPERATURE MUST BE CONSIDERABLY HIGHER TO COMPENSATE

GOOD INSULATION E.G. BAUFRITZ U- VALUE FOR EXTERNAL WALLS 0.15 W/M^{2}K

INSIDE SURFACES OF EXTERNAL WALLS ARE AT A HIGHER TEMPERATURE SO IT'S COMFORTABLE IN SPITE OF A MUCH LOWER ROOM TEMPERATURE.

CONSIDERABLE SAVINGS IN ENERGY CONSUMPTION FOR HEATING - 1˚C REDUCTION IN TEMPERATURE SAVES ABOUT 5% HEATING ENERGY.

THERMAL EFFICIENCY

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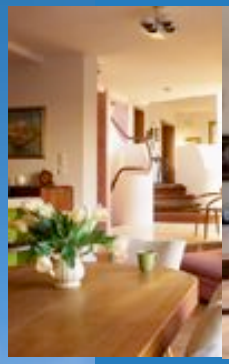

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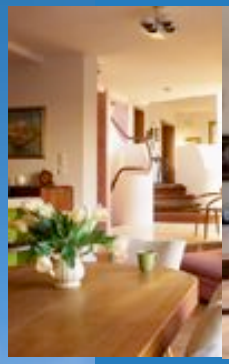

GOOD INSULATION HAS BENEFITS IN SUMMER TOO.

ROOF INSULATING MATERIALS E.G. FIBREGLASS, ROCK WOOL OR MINERAL WOOL, (THICKNESSES OF ABOUT 20 CM), TAKE 3 – 5 HOURS BEFORE A NOTICEABLE INCREASE IN TEMPERATURE CAN BE FELT INSIDE

WITH WOOD SHAVING INSULATION, THE HEAT TAKES 14 – 16 HOURS TO REACH THE INNER SURFACE. BY THAT TIME, THE SUN, IS NO LONGER SHINING ON THE ROOF SURFACE, AND THERE IS OPPORTUNITY FOR VENTILATION – SO NO NEED FOR AIR-CON.

IONISATION

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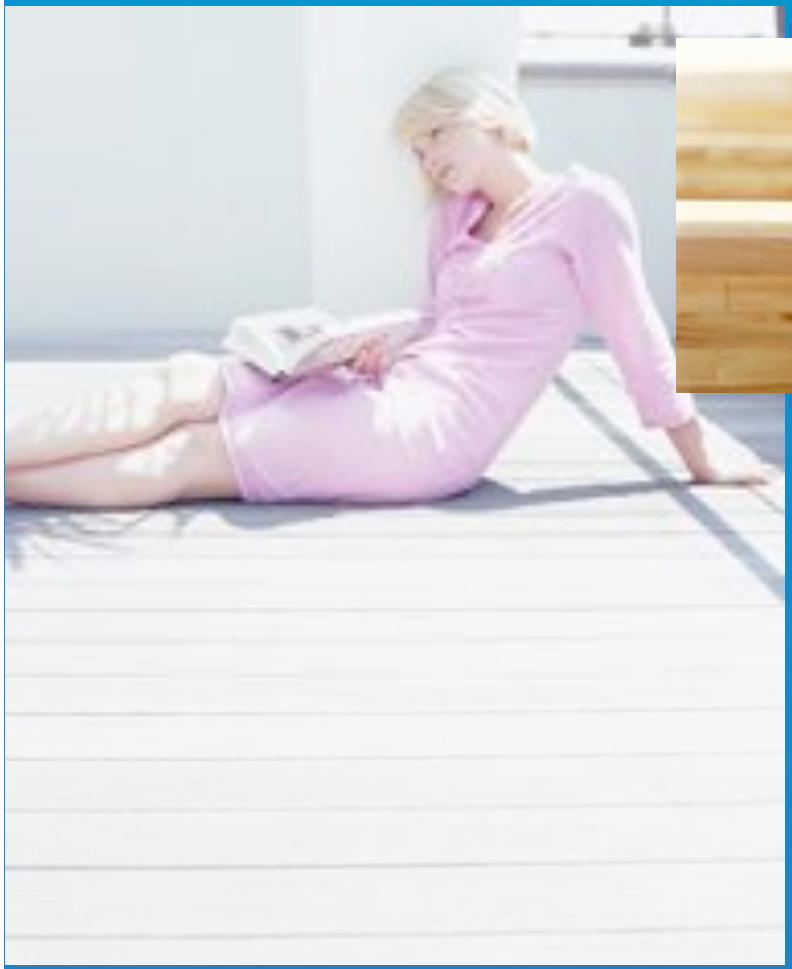

A HIGH PROPORTION OF NEGATIVELY CHARGED OXYGEN IONS IS IMPORTANT FOR WELLBEING.

OVER 500 NEGATIVELY CHARGED IONS PER CM^3 ARE RECOMMENDED FOR LIVING AND SLEEPING AREAS.

NEGATIVE IONS IMPROVE THE CONCENTRATION OF OXYGEN IN THE BLOOD, STABILISE RESPIRATION, STIMULATE THE METABOLISM AND IMPROVE MOTOR FUNCTION.

AN EXCESS OF NEGATIVE IONS IMPROVES WELLNESS.

TOO LITTLE CAN CAUSE HEADACHES, CONCENTRATION DISTURBANCE, GENERAL FATIGUE, MIGRAINE, RAPID FATIGUE OF THE EYES, AND THROAT IRRITATION.

IONISATION

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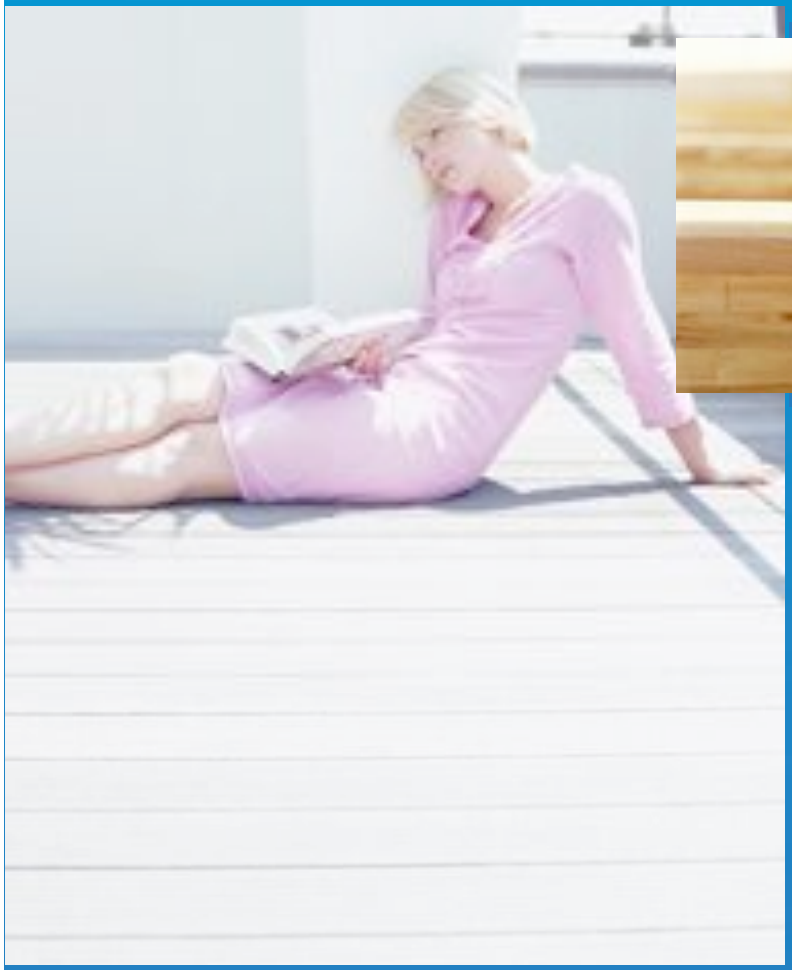

TOO MANY POSITIVE IONS CAN CAUSE AN INCREASED RELEASE OF SEROTONIN, WHICH LEADS TO IRRITABILITY, UNEASE, CONVULSIONS AND ANXIETY STATES

NEGATIVE IONS ARE CONSUMED BY NORMAL EXPIRATION, DUST PARTICLES AND NEUTRALISATION PROCESSES ON ELECTROSTATICALLY CHARGED SURFACES E.G. WALLS PAINTED WITH RESIN PAINTS, LAMINATE FLOORS, SEALED WOODEN FLOORS, PLASTIC

THEREFORE BY USING ONLY NATURAL MATERIALS FOR BUILDING WE CAN ENSURE GOOD IONISATION OF THE AIR

PERMEABILITY

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2 – 3 LITRES OF WATER PER PERSON PER DAY INSIDE EVERY HOUSE

IN MODERN HOUSES ACT LIKE PLASTIC BAGS, CREATING A HUMID ATMOSPHERE

GOOD COMPONENT DESIGN IS VITAL E.G. USE OF TECHNICAL PAPERS TO CREATE A 'BREATHEABLE' WALL STRUCTURE

MOISTURE IS TRANSPORTED OUTWARDS MORE RAPIDLY THAN IT IS PRODUCED ON THE INSIDE

WHAT IS ELECTROSMOG?

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ALL LIVE ELECTRICAL CABLES, SWITCHES, PLUG SOCKETS AND ELECTRICAL COMPONENTS PRODUCE ALTERNATING ELECTRICAL FIELDS. EVEN IF THE DEVICE IS NOT SWITCHED ON

ACCORDING TO THE *INSTITUTE FOR BUILDING BIOLOGY AND ECOLOGY, NEUBEUERN,* THESE COMMON 50 HZ ALTERNATING FIELDS DISTURB THE TRANSMISSION OF INFORMATION IN THE NERVE CELLS OF THE BRAIN.

MANY SCIENTIST BELIEVE THAT THESE LOW FREQUENCIES CAN CAUSE DISEASES SUCH AS LEUKAEMIA, MIGRAINE ATTACKS, HEART ATTACKS, WEAKENING OF THE IMMUNE SYSTEM, CHANGES TO THE BLOOD COUNT AND SLEEP DISTURBANCE.

ELECTROSMOG SHIELD

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KLITZING, CARLO, AND OBERFELD HAVE WARNED ABOUT NON-THERMAL INFLUENCES OF MOBILE PHONE TRANSMITTERS ON THE HUMAN BODY

ACCORDING TO SPECIALISTS IN ENVIRONMENTAL MEDICINE HIGH FREQUENCY PULSES MAKE THE BLOOD-BRAIN BARRIER IN THE HEAD MORE PERMEABLE TO TOXINS

DISEASES SUCH AS TUMOURS, MULTIPLE SCLEROSIS, DEMENTIA, PARKINSON'S DISEASE AND ALZHEIMER'S DISEASE HAVE BEEN ASSOCIATED WITH THIS EFFECT

FOR OVER 6 YEARS, BAUFRITZ HAS USED X & E- PROTECTION TECHNOLOGY AS STANDARD WHICH CUTS OUT UP TO 99% OF HIGH FREQUENCY ELECTROMAGNETIC RADIATION.

LUXURY FOR LIFE

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UK PROJECTS

LUXURY FOR LIFE

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THANK YOU

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