



/ DESIGN & ECOLOGY

/ A SNEAKER



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/ A SNEAKER

/ PACKAGING

/ RECYCLING PAPER

/ SOLVENT FREE COLOURS

/ NO PLASITC FILM



/ DESIGN & ECOLOGY

/ A SNEAKER

/ PACKAGING

/ RECYCLING PAPER

/ SOLVENT FREE COLOURS

/ NO PLASTIC FILM

/ SUBSTITUTION OF MATERIALS

/ LEATHER FROM THE ENTIRE ORGANIC COW

/ CHLORINE FREE BLEACH

/ VEGANE SHOE UPPER

/ SHOE SOLE FROM.....

/ OLD CAR TYRES

/ RECYCLING MATERIAL

/ RENEWABLE RAW MATERIALS

/ RHIZINUS OIL & STRAW



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/ RENEWABLE RAW MATERIALS

/ RHIZINUS OIL & STRAW

/ PRODUCTION

/ MADE IN PORTUGAL

/ TAKE BACK & 100% RECYCLING



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/ THIS IS THE GENERAL IDEA OF SUSTAINABLE PRODUCT DEVELOPMENT - ISN'T IT?

/ IS THIS FUTURE ORIENTED & INNOVATIVE DESIGN?

/ THIS IS SUBSTITUTION - BUT NO INNOVATION !



/ THE SPORTS SHOE

/ DESIGN

/ INNOVATION

/ ECOLOGY

/ PRODUCT DEVELOPMENT

/ TRIATHLON RUNNING SHOE

/ PRODUCT ANALYSIS

/ COMPONENTS

/ MATERIALS

/ PRODUCTION



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/ 50 DIFFERENT COMPONENTS

/ 30 UNITS OF TOOLS / PER SHOE SIZE

/ 15 MATERIALS / raw material use, tooling, chemicals, water, energie, production transport, storage... etc.

/ ROLL MATERIAL WHICH IS PUNCHED

/ OFFCUTS / WASTE

/ PUNCHING / GLUING / SEWING / MOULDING / PRINTING... MANY WORK STEPS

/ MULTILAYER ADDITIVE CONSTRUCTION



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/ MATERIALS

/ PRODUCTION

/ FUNKTIONAL ANALYSIS

/ WHAT IS THE USE?

/ FUNCTION

/ COMFORT

/ OPTIMISATION

/ TRIATHLON

/ LIGHT WEIGHT

/ VERY QUICK DRYING

/ BREATHABLE

/ PERFECT RUNNING QUALITIES

/ BEST SOLE PERFORMANCE & FIT

/ QUICK TO PUT ON & TAKE OFF

/ THE SPORTS SHOE

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/ WHAT IS THE USE?

/ FUNCTION

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/ OPTIMISATION

/ CONCEPT

/ * FUNCTION

/ COMPONENTS

/ PERFORMANCE

/ CONCENTRATION

/ UNCOMPROMISING LOGIC CAUSES INNOVATION

/ MINIMUM.... WEIGHT

/ MINIMUM.... VOLUME

/ MINIMUM.... COMPONENTS / LAYERS

/ NET-LIKE STRUCTURE / BREATHABLE

/ SHOE UPPER / LIGHT WEIGHT CONSTRUCTION

/ SHOE SOLE / BEST PERFORMANCE

/ FIT / SKIN-TIGHT LIKE A SOCK

/ USE / SLIP IN INSTEAD OF LACING UP

/ THE SPORTS SHOE / DESIGN / INNOVATION / ECOLOGY

/ PRODUCT DEVELOPMENT / TRIATHLON RUNNING SHOE

/ PRODUCT ANALYSIS / COMPONENTS / MATERIALS / PRODUCTION

/ FUNKTIONAL ANALYSIS / WHAT IS THE USE? / FUNCTION / COMFORT / OPTIMISATION

/ CONCEPT / * FUNCTION / COMPONENTS / PERFORMANCE / CONCENTRATION

/ LOGIC & INNOVATION

/ RESEARCH / SCIENCE / INTERDISZIPLINARY / MATERIAL & TECHNOLOGY

/ ANALYSIS / POTENTIAL / REDUCTION / CONSTRUCTION / DESIGN MEANS ALL THIS!

/ TEXTILE- TECHNOLOGY

/ 3D KNITTING / CAR SEAT / ISSEY MIYAKE

/ HIGH TECH YARNS AND FILAMENTS

/ EXPLORING THE POTENTIAL 3D KNITTING TECHNOLOGY

/ SOLID, FLEXIBLE, WIDE MESH, SMALL MESH, LOOP, TUNNEL, PATTERN.....

/ 1 KNITTED LAYER.... ALL FUNCTIONS INTEGRATED

/ NO OFFCUT / NO WASTE

/ DATA INSTEAD OF TOOLS / SIZES, PATTERNS, FUNCTIONS, THE NEXT PRODUCT FAMILY....

/ 2 TOOLS / PER SIZE / SOLE & INSOLE





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/ PRODUCTION

/ DEVELOPMENT / HOW TO USE / FORM / COLOUR / DETAILS / ERGONOMICS

/ FASHION & HIGH TECH / 3D KNITTING

/ INTERFACE SOCK & SHOE

/ YARN / COMBINATION OF COLOUR, MATERIAL, THICKNESS, APPEARANCE

/ KNITTED LOOPS, REINFORCEMENTS, STRENGTHENING RIBS, PARTIALLY DOUBLE-LAYER.....

/ PATTERNS, MESH TYPES, COLOURS

/ THE SPORTS SHOE

/ NIKE FLY KNIT



/ THE SPORTS SHOE / DESIGN / INNOVATION / ECOLOGY

/ PRODUKTEN DEVELOPMENT / TRIATHLON RUNNING SHOE

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/ DEVELOPMENT / HOW TO USE / FORM / COLOUR / DETAILS / ERGONOMICS

/ IMPLEMENTATION / LESS / COMPONENTS / VOLUME / WEIGHT

/ MATERIALS / NO HARMFULL SUBSTANCES / TOOLS

/ NIKE FLY KNIT / ASSEMBLING / LOGISTICS / ENERGY / COSTS

/ 5 COMPONENTS: SOLE, INSOLE, 3D UPPER, LACES

/ 1 LAYER KNITTING CONSTRUCTION

/ SHOE UPPER: MONOMATERIAL-CONSTRUCTION / SINGLE TYPE PLASTIC

/ 1 × INJECTION MOULDING, THERMOMOULDING, KNITTING, 4cm SEWING, SHAPING, LACING

/ 1 × GLUE & ALMOST NO LOGISTICS

/ DEFINITELY LESS ENERGY USAGE & LESS PRODUCTION COSTS

/ THE SPORTS SHOE

/ NIKE FLY KNIT



/ FLY KNIT FROM NIKE

/ ECO - INNOVATION

/ DESIGN

/ CONSTRUCTION

/ FUNCTION

/ VARIATION

/ 1 TO THOUSANDS

/ PRODUCTION

/ LESS INVEST, HARDWARE, PURCHASE, LOGISTICS, SPACE....

/ ARCHETYPE

/ FASCINATION

/ UNIQUE

/ ECOLOGY

/ FOOTBALL, RUNNING, GYMNASTICS, HIKING, PARCOURS.....

/ SPORT, FASHION, LEISURE, MEDICINE

/ YOUNG - SENIOR

/ LIMITED EDITION - MASS PRODUCT

/ TODAY 3D KNITTING IS AN ESTABLISHED PRODUCTION METHOD FOR SHOES!!

/ GLOBAL IMPACT

/ GLOBAL & INTERDISCIPLINARY PROJECTS

/ SMART SOLUTIONS

/ REALISABLE

/ DESIGN / RESPONSIBILITY

/ REDUCE

/ RETHINK

/ REDO

/ RE-INNOVATE

/ NETWORK DESIGN & SCIENCE

/ CLIMATE IMPROVING

/ BIOSPHERE REGENERATING

/ CO2 NEUTRAL

TEXTILES, CERAMICS, WOOD, METAL, GLASS, PLASTIC, CARROTS, FUNGI, ALGAE, BACTERIA

SOLID, LIQUID, ROBUST, LIGHT, FLEXIBLE, ULTRA-THIN....
SHEET, FILM, MASS, YARN, COATING, LIQUID, MOLECULE....

KNITTING, INJECTION MOLDING, BENDING, SAWING, GLUING, DRILLING, MILLING, 3D PRINTING
& AUTONOMOUS GROWING.....

MATERIALS TODAY CAN BE ENDOWED WITH A WIDE VARIETY OF PROPERTIES
THEY CAN BE PROCESSED OR „SHAPED“ IN ALMOST ANY PROCESS.
THE POSSIBILITIES ARE ALMOST LIMITLESS!

KNITTED CERAMICS, FOAMED PAPER, INJECTION-MOLDED METAL, BLOW-MOLDED TEXTILES,
PLOTTED CONCRETE, MOLDED THERMOPLASTIC MUSHROOMS, PRINTED ELECTRONICS.....

WE JUST HAVE TO KNOW THESE POSSIBILITIES, CHALLENGE THEM, DISCOVER THEM,
USE THEM CORRECTLY, EQUIP THEM WITH FUNCTIONS TO DEVELOP INNOVATIVE AND, ABOVE
ALL, SUSTAINABLE SOLUTIONS AND PRODUCTS.

WORKING WITH THIS INTENTION MEANS SETTING UP TOPIC-RELATED INTERDISCIPLINARY TEAMS
OF COURAGEOUS PEOPLE!

**IT IS UP TO US DESIGNERS TO THINK, DEVELOP AND COMMUNICATE....
TO CREATE TRULY RELEVANT NEW SOLUTIONS!**

/ LESS

/ THANK´S!