

E&E

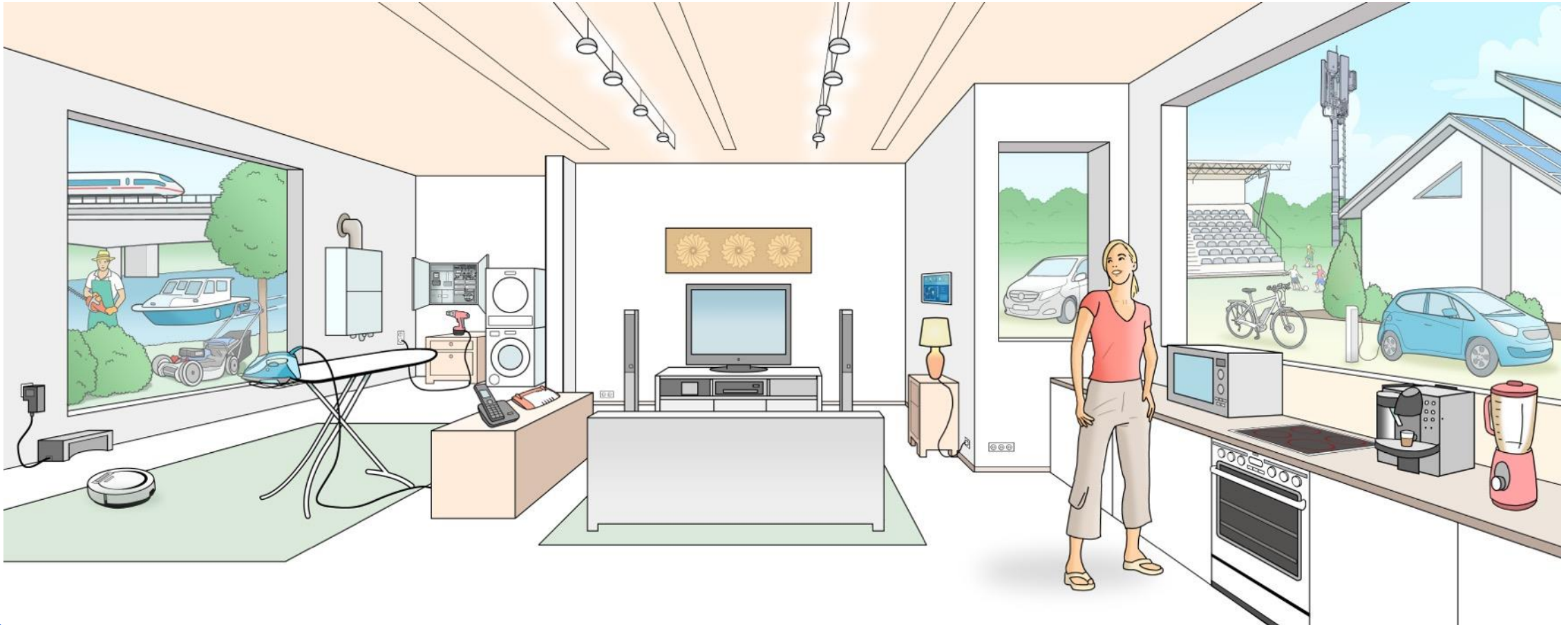
Market – Application - Material

For Engineered Polymers (EP) & Polypropylene Compounds (PPC)

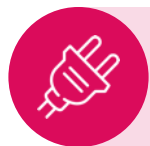
Solutions for a Better Tomorrow



Electronics &
Electrical



Solutions for a Better Tomorrow



Electronics &
Electrical

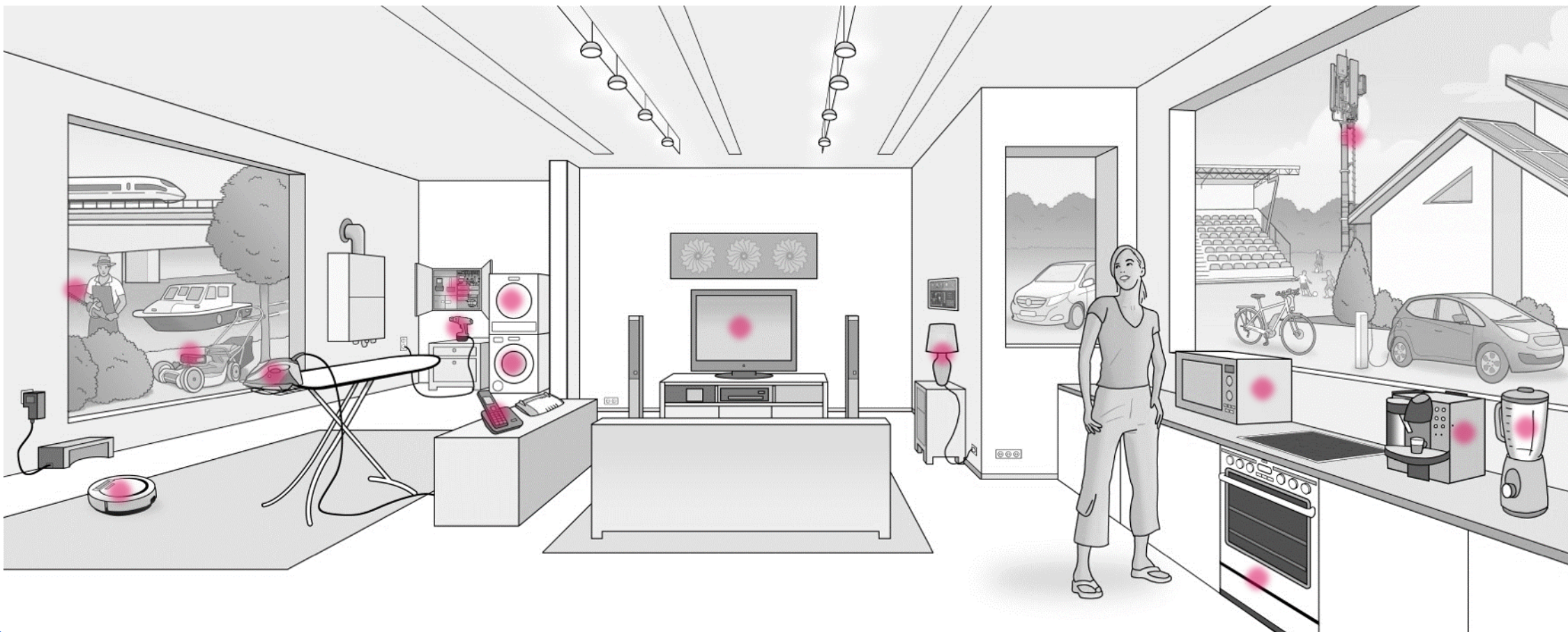
Power tools

Gardening

Electrical
Components

White Goods

5G / 6G
Telecom



E&E - Power Tools

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[Housings EP](#)

[Housings PPC](#)

[Battery Packs](#)

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E&E - Power Tools - Housing Applications



What the application requires

- High stiffness
- Toughness
- Drop test resistance
- Demanding colors with high UV resistance
- Recycling content possible

- *Schulamid 66 SK1000* – Super high impact PA66 in various colors
- *Schulamid 6 GF30 RD* – Reduced density PA6 GF30 for lower part weight and improved multi component adhesion
- *Schulamid 6 GF 30 HI K1886* – High impact PA6 GF30 with improved performance and various colors
- *CirculenRecover EP PA6 GF* – Recycled PA6 glass fiber filled in high quality, various colors and UL listing

Material choice and main attributes

E&E - Power Tools - Housing Applications



What the application requires

- High stiffness
- Toughness
- Drop test resistance
- Demanding colors with high UV resistance
- Recycling content possible

- *Hostacom* FPP 30GFC LS K1041 – Homo PP GF30, UV stabilized, in various colors
- *Polyfort* FIPP 10T K2369 SIL – Copo PP in silver metallic
- *Polyfort* FPP 40GFC SHI – Super high impact homo PP GF40

Material choice and main attributes

E&E - Power Tools - Battery Packs



What the application requires

- Flame retardant, free of halogen
- High stiffness
- Toughness
- Demanding colors with high UV resistance

- *Schulamid 6 GF30 4DD* – Halogen free PA6, V-0 down to 0,4 mm wall thickness, improved surface quality, UL listing
- *Schulamid 6 GF30 HI FR4* – Impact modified PA6 GF30 V-0 grade, UL listing, halogenated
- *Polyflam RABS 90000 UV5* – Unfilled V-0 ABS grade, UL listing, halogenated

Material choice and main attributes

E&E - Power Tools - Switches



What the application requires

- High stiffness
- Toughness
- Demanding colors with high UV resistance
- Good Processability

- *Schulamid 6* – Unfilled PA6 compounds with additivation and in various colors
- *Schulamid 6 GF* – PA6 GF compounds in various colors
- *CirculenRecover EP PA6 MV14 U* – Recycled, unfilled PA6 compound in high quality, various colors and UL listing
- *CirculenRecover EP PA6 GF* – Recycled PA6 glass fiber filled in high quality, various colors and UL listing
- *Hostacom M2 U01* – PP Homopolymer, mineral filled with high flowability and UL listing

Material choice and main attributes

E&E - Gardening

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Sit-on Tools



Walk Behind Tools



Handheld



High Pressure Cleaners



Battery Packs



Switches



E&E – Gardening – Sit-on tools

Claddings & Functional / Technical Parts



What the application requires

- Scratch resistance
- High stiffness
- Toughness
- Demanding colors with high UV resistance
- Isotropic shrinkage & dimensional stability

- *Ronfalin* ASA 3421 U – Impact modified ASA, increased heat resistance, excellent UV stability
- *Schulamid* 6 GF30 RD – Reduced density PA6 GF30 for lower part weight and improved multi component adhesion
- *CirculenRecover* EP PA6 GF – Recycled PA6 glass fiber filled in high quality, various colors and UL listing
- *Hostacom* TRS 439L – PP unfilled with high UV stability

Material choice and main attributes

E&E – Gardening – Walk Behind Tools

Chassis, Functional / Technical Parts



What the application requires

- High stiffness
- Toughness
- Demanding colors with high UV resistance
- Flame retardant, free of halogen
- Chemical resistance

- *Schulamid 6 GF30 RD* – Reduced density PA6 GF30 for lower part weight and improved multi component adhesion
- *CirculenRecover EP PA6 GF* – Recycled PA6 glass fiber filled in high quality, various colors and UL listing
- *Hostacom TRS 439L* – PP unfilled with high UV stability

Material choice and main attributes

E&E – Gardening – Handheld Tools

Functional / Technical Parts



What the application requires

- High stiffness
- Toughness
- Demanding colors with high UV resistance
- Chemical Resistance

- *Schulamid 6 GF30 RD* – Reduced density PA6 GF30 for lower part weight and improved multi component adhesion
- *CirculenRecover EP PA6 GF* – Recycled PA6 glass fiber filled in high quality, various colors and UL listing
- *Schulablend M/MW* – PA/ASA Blend with high UV stability and impact resistance
- *Ronfalin ASA 3421 U* – Unfilled ASA with UV stability, high gloss and in various colors

Material choice and main attributes

E&E – Gardening – High Pressure Cleaners

Housings, Functional / Technical Parts



What the application requires

- High stiffness
- Toughness
- Demanding colors with high UV resistance
- Chemical resistance

- *Schulamid 6 GF30 RD* – Reduced density PA6 GF30 for lower part weight and improved multi component adhesion
- *CirculenRecover EP PA6 GF* – Recycled PA6 glass fiber filled in high quality, various colors and UL listing
- *Hostacom TRC427D* – Talc filled PP as replacement of ABS

Material choice and main attributes

E&E – Gardening – Battery Packs



What the application requires

- Flame retardant, free of halogen
- High stiffness
- Toughness
- Demanding colors with high UV resistance

- *Schulamid 6 GF30 4DD* – Halogen free PA6, V-0 down to 0,4 mm wall thickness, improved surface quality, UL listing
- *Schulamid 6 GF30 HI FR4* – Impact modified V-0 grade, UL listing, halogenated
- *Polyflam RABS 9000 UV5* – Unfilled V-0 ABS grade, UL listing, halogenated

Material choice and main attributes

E&E – Gardening – Switches



What the application requires

- High stiffness
- Toughness
- Demanding colors with high UV resistance
- Good Processability

- *Schulamid 6 MV14* – Standard unfilled PA6 compounds in various colors
- *Schulamid 6 GF* – PA6 GF in various colors
- *CirculenRecover EP PA6 MV14 U* – Recycled, unfilled PA6 compound in high quality, various colors and UL listing
- *CirculenRecover EP PA6 GF* – Recycled PA6 glass fiber filled in high quality, various colors and UL listing

Material choice and main attributes

E&E – Electrical Components

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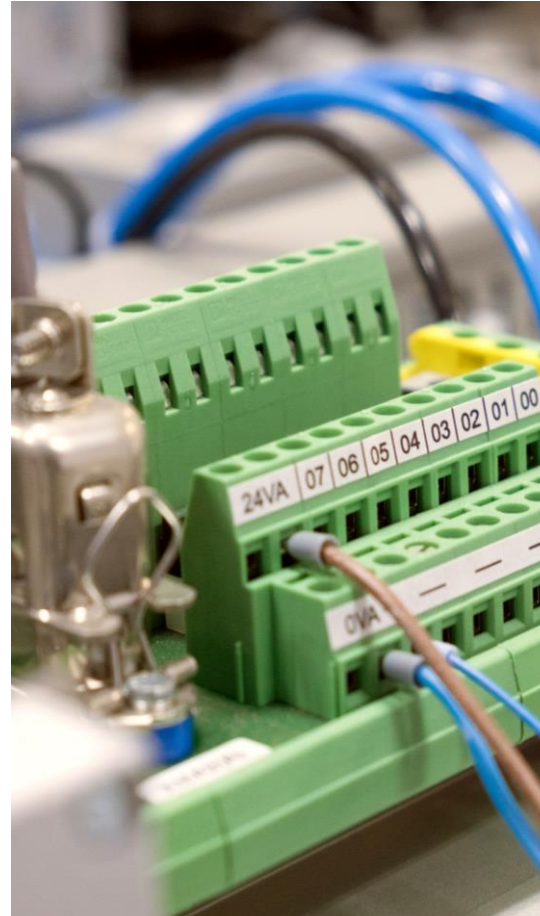
Connectors



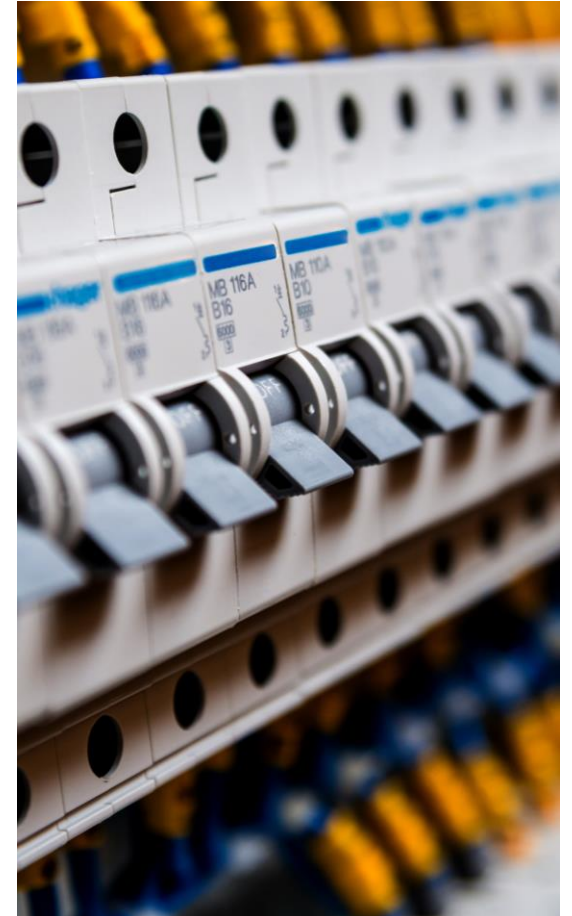
Cabinets



Terminal Blocks



Circuit Breaker



E&E – Electrical Components – Connectors

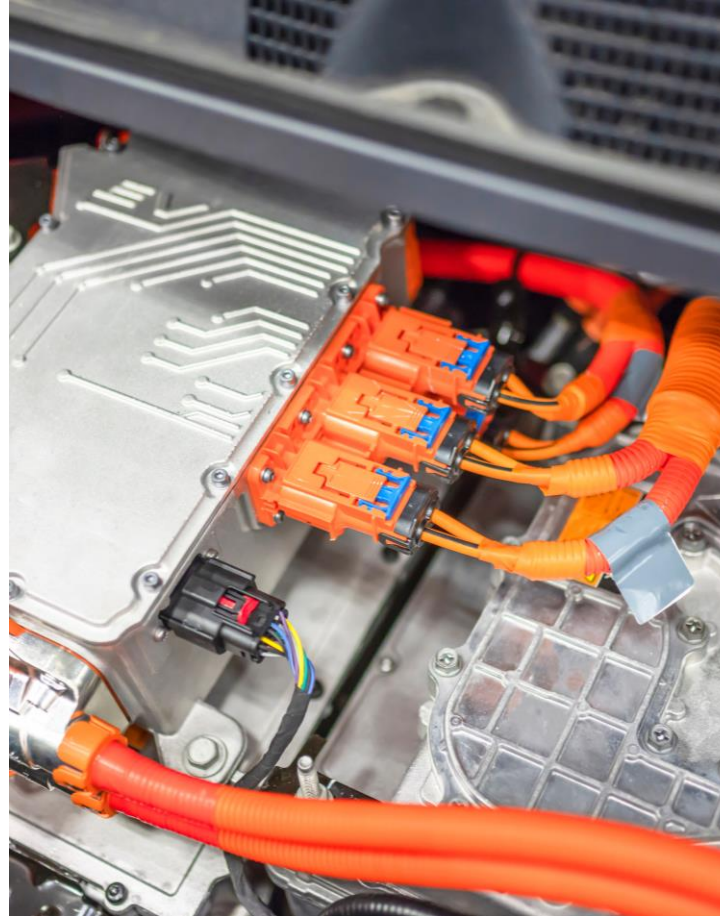
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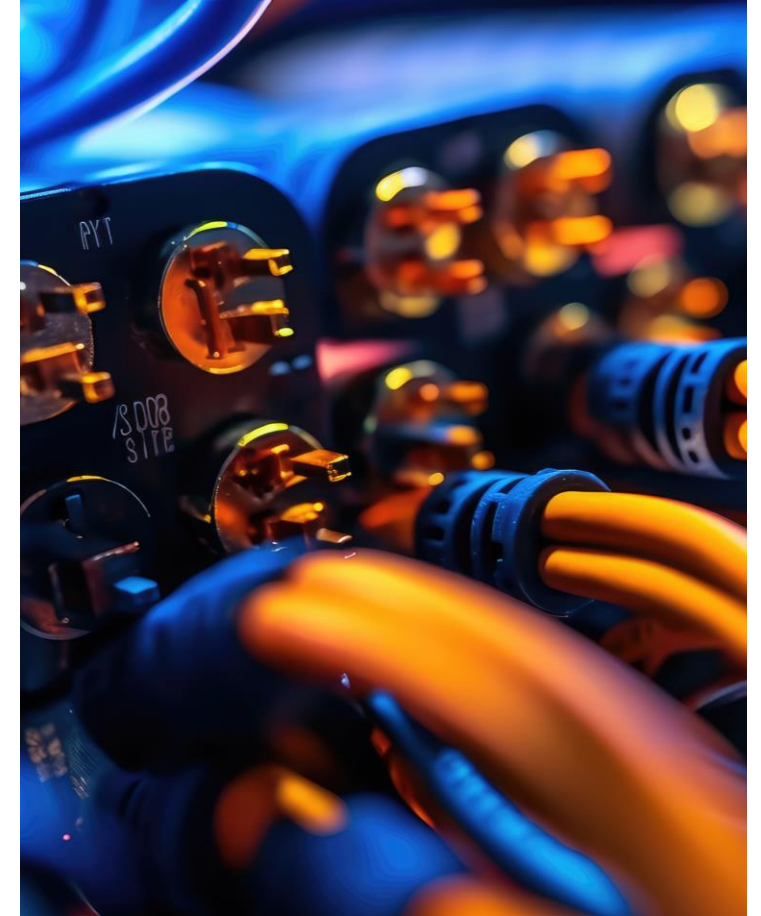
Appliance



Automotive



Communication



E&E– Electrical Components – Connectors Appliance



What the application requires

- High Glow Wire Ignition Temperature $\geq 775^{\circ}\text{C}$
- High flexibility for hinges
- Broad range of colors
- RTI values listed at UL

- *Schulamid 6 MV14 FR4 K1681* – Unfilled PA6 with high GWIT values of 930°C at 0,4mm wall thickness
- *Schulamid 6 GF7-15 FR4 K1681* – PA6 with 7-15% glass fiber, supporting predetermined breaking points
- *Schulamid 6 MV14 GW FR* – Unfilled PA6, halogen free flame-retardant system UL94 V0, CTI 600V
- *Schulamid 66 GF25 FR5A* – PA66 with 25% glass fiber, antimony free FR solution
- *Schulamid 66 MV5 FR* – Unfilled PA66 with fast cycle times, halogen free V0

Material choice and main attributes

E&E– Electrical Components – Connectors

Automotive



What the application requires

- High strength and low warpage
- Electrically neutral heat stabilization
- Good colorability (orange RAL 2003)
- High CTI of 600V
- Halogen free flame retardant system

- *Schulamid 6 GF30 H2 FR2* – PA6 with 30% glass fiber, electrically neutral heat stabilized, CTI 600V, halogen free
- *Schulaketon GF30 4DE* – Polyketon with 30% glass fiber, V0 down to 0,4mm wall thickness
- *Schulaketon GF30 SF 4DE* – Polyketon with 30% glass fiber and improved flowability, high stiffness
- *Schuladur A GF30 FR2* – PBT with 30% glass fiber, Halogen free flame retardant
- *Schuladur A MV14 SHI FR1* – Unfilled, High impact PBT, CTI 600V, improved hydrolysis properties

Material choice and main attributes

E&E– Electrical Components – Connectors

Communication



What the application requires

- High strength and low warpage
- Good colorability
- Improved welding properties

- *Polyflam RPP 374 ND CS1* – 20% talc filled homo PP with electrically neutral heat stabilization
- *Polyflam RPP 4225 CS1* – Homo PP with 25% glass fibers, V0 down to 0,8mm wall thickness
- *Polyflam RPP 60335 CS1* – 25% talc filled Homo PP, fulfilling requirements of IEC60335-1

Material choice and main attributes

E&E – Electrical Components – Cabinets



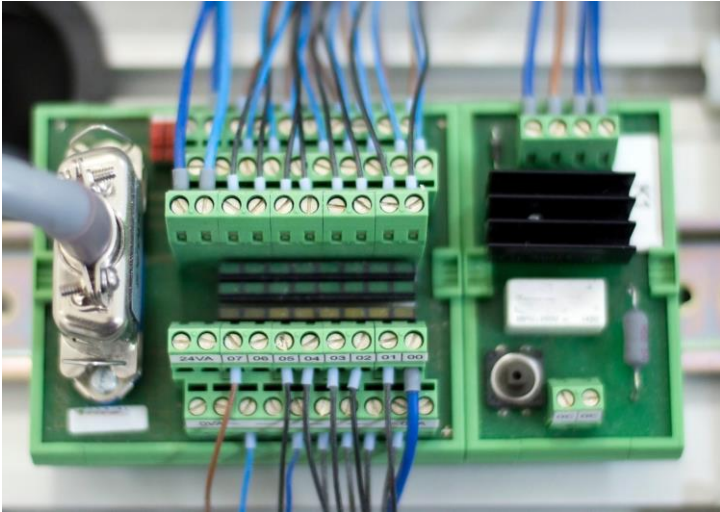
What the application requires

- GWIT 650°C and GWFI 960°C
- Constant color by pre-colored compounds
- Balanced cost vs. performance ratio
- UL94 listing existing

- *Polyflam* SDR 5005 HP25 – Unfilled, cost-efficient Polystyrene concentrate, various colors available
- *Polyflam* SDR 5000 – One shot Polystyrene unfilled solution, pre-colored, V2 flame rating

Material choice and main attributes

E&E – Electrical Components – Terminal Blocks



What the application requires

- Fast cycle times
- High Glow Wire Ignition Temperature
- Good colorability
- RTI listing at UL
- Halogen free flame-retardant system

- *Schulamid 6 MV14 FR* – Unfilled, halogen free flame retardant PA6 compound
- *Schulamid 6 MV14 GW FR* – Unfilled PA6, halogen free flame retardant with improved GWIT 775°C
- *Schulamid 6 MV14 FR K2354* – Unfilled PA6 with high LOI >34%, halogen free
- *Schulamid 66 MV5 FR* – Unfilled PA6, halogen free flame retardant, fast cycling times

Material choice and main attributes

E&E – Electrical Components – Circuit Breakers



What the application requires

- High strength
- Low warpage and dimensional stability
- Good colorability

- *Schulamid 6 MV14 FR K2354* – PA6, high LOI >34%, halogen free
- *Schulamid 6 GF15 4DD* – PA6 with 15% glass fiber, Halogen free flame retardant, RTI listed at UL
- *Schulamid 66 GF30 FR2 K2322* – PA 66 with 30% glass fiber, halogen free, V0 at 2,00mm
- *Schuladur A GF30 HF2 HI FR1* – PBT with 30% glass fiber and additional impact modification, flame retardant
- *Polyflam RPC 40400* – Unfilled Polycarbonate, halogen free flame retardant, various colors available

Material choice and main attributes

E&E – White Goods

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Major Appliances

Small Appliances



E&E – White Goods – Major Appliances

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Dish Washer



Washing Machine EP

Washing Machine PPC



Dryer



Fridge



Oven



E&E – White Goods – Major Appliances

Dishwasher



What the application requires

Interior:

- Good color stability, low yellowing
- High HDT and long term heat stabilization
- Stability to media contact

Exterior:

- High stiffness

- *Schulatec* PPS GF40 black – PPS 40% glass fiber with high HDT and thermal stability – Zeolith drying
- *Hostacom* HBC 181L – PP 40% talc, low flow, heat stabilized and low yellowing
- *Hostacom* HBC 327L – PP 30% talc, low flow
- *Hostacom* HYG 343 – PP 40% glass fiber, high flow, heat stabilized and low yellowing – Interior

Material choice and main attributes

E&E – White Goods – Major Appliances

Washing Machine



What the application requires

Interior:

- Good color stability
- High HDT and long term heat stabilization
- Stability to media contact

Exterior:

- High stiffness

- *Schulamid 6 GF65 Nat* – PA6 with 65% glass fiber, high stiffness grade, metal replacement – Pulley
- *Schulamid 66 GF50 H Grey* – PA 66 with 50% glass fiber, high stiffness grade, metal replacement – Door hinge
- *Schulamid XM GF60 Grey* – PA66/PA6I/PA6T Blend with superior surface quality and high stiffness – Door hinge
- *Polyman FABS GF20* – ABS with 20% glass fiber, low warpage, high stiffness – Panel frame

Material choice and main attributes

E&E – White Goods – Major Appliances

Washing Machine



What the application requires

Interior:

- Good color stability
- High HDT and long term heat stabilization
- Stability to media contact

Exterior:

- High stiffness

- *Hostacom* PC072-3 – PP 30% glass fiber, low flow, heat stabilized – Washer Tub
- *Hostacom* HKG 424-3L – PP 30% talc, medium flow – Washer Tub
- *Hostacom* HKP 2262L – PP 40% chalk, medium flow, heat stabilized – Washer Tub
- *Hostacom* HKC 182L – PP 30% talc, medium flow, heat stabilized and low yellowing – Soap dispenser

Material choice and main attributes

E&E – White Goods – Major Appliances – Dryer



What the application requires

Interior:

- Good color stability
- High HDT and long term heat stabilization
- Stability to water Vapor

Exterior:

- High stiffness

- *Schulamid 66 GF30* – PA66 with 30% glass fiber in white – Back panel
- *Hostacom RC EKC 2300L NAT* – Recycled PCR PP 40% talc, medium flow, head stabilized – Basement Cover
- *Hostacom HYG 343* – PP-GF40, high flow, head stabilized and low yellowing – Window
- *Hostacom HBC 327L* – PP 30% talc, low flow – Base Plate
- *Hostacom HKC 182L* – PP 30% talc, medium flow – Visible parts

E&E – White Goods – Major Appliances – Fridge

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What the application requires

Interior:

- Food Contact
- Low temperature impact strength
- Transparency

Exterior:

- Some FR applications

- *Polyman* ABS M/TK K1458 WHI 80390 – ABS unfilled, food contact – Drawers
- *Hostacom* ERC 2312R – Copo PP with 25% talc, high flow, food contact – Glass plate overmolding
- *Hostacom* HBC 489R W92607 – PP with 30% talc, medium flow, food contact – Drawers
- *Polywhite* HS 87558/3 – HIPS based white Masterbatch, food contact – Coloring of HIPS Thermoform sheet
- *Polywhite* P 8672/3 – HIPS based white Masterbatch, food contact – Visible PP parts

Material choice and main attributes

E&E – White Goods – Major Appliances – Oven



What the application requires

- High heat distortion resistance (HDT)
- Long term heat stability
- Good surface quality
- Flame-retardant properties

- *Schulamid* 6 GF30 H – Standard PA 6 30% glass fiber reinforced, heat stabilized – Oven frame
- *Schulamid* 66 GF30 FR2 – PA66 with 30% glass fiber, halogen free, UL-94 V0
- *Schulamid* PPA GF 33 – Polyphthalamide with high stiffness at elevated temperatures – Pyrolytic oven & steam oven rail
- *Polyflam* RPP 4220 MD 16V0 – Homo PP with 20% glass fiber, halogen free UL-94 V0 – Fan
- *CirculenRecover* PPC EKC 2300L – Recycled PCR PP with 40% talc, heat stabilized – Airflow, non pyrolytic oven

Material choice and main attributes

E&E – White Goods – Small Appliances

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Vacuum Cleaners



Coffee Machines



Others



E&E – White Goods – Small Appliances

Vacuum cleaner



What the application requires

- High Impact behaviour
- Excellent surface quality
- Scratch optimized

- *Ronfalin* ABS 1337 – unfilled ABS with high gloss – Foot padel
- *Hostacom* ERC 2017L – Copo PP with 20% talc, high flow, scratch optimized – Swivel
- *Hostacom* ERS 5011L E – Copo PP, unfilled, high flow, scratch optimized – Body
- *CirculenRecover* PPC ERS 2302L C11658 – Recycled Copo PP, unfilled – Vacuum nozzle

Material choice and main attributes

E&E – White Goods – Small Appliances

Coffee Machines



What the application requires

- Food Contact
- Heat stability and media contact
- Excellent surface quality
- Scratch optimized

- *Schulamid 6 GBF3015 FC* – PA6 with glass fiber / mineral mix, low warpage, food contact
- *Schulamid 66 GF43* – 43% glass fiber reinforce PA66 with high HDT and high stiffness – Structural parts
- *Polyflam RPP 2000 S* – Unfilled, halogen free homo PP, UV stabilized, UL-94 V2, GWFI 960 – Venting channel
- *Polyman ABS LP320 EF* – Unfilled ABS with high flow
- *Hostacom HRC 182L* – PP with 30% talc, medium flow – Steam expander

Material choice and main attributes

E&E – White Goods – Small Appliances – Others



What the application requires

- Food Contact
- Heat stability and media contact
- Excellent surface quality
- Scratch optimized

- *Schulatec* PPS GF 40 black – PPS 40% glass fiber with high HDT and thermal stability – Microwave oven frames
- *Hostacom* MT10 U FC H2 – PP with 10% talc, medium flow, heat stabilized, food contact – Cookers
- *Hostacom* MT20 U FC H2 – PP with 20% talc, medium flow, heat stabilized, food contact – Cookers

Material choice and main values

5G / 6G Telecom – Stay tuned for more!

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Solutions for a better tomorrow

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