3M

Science.
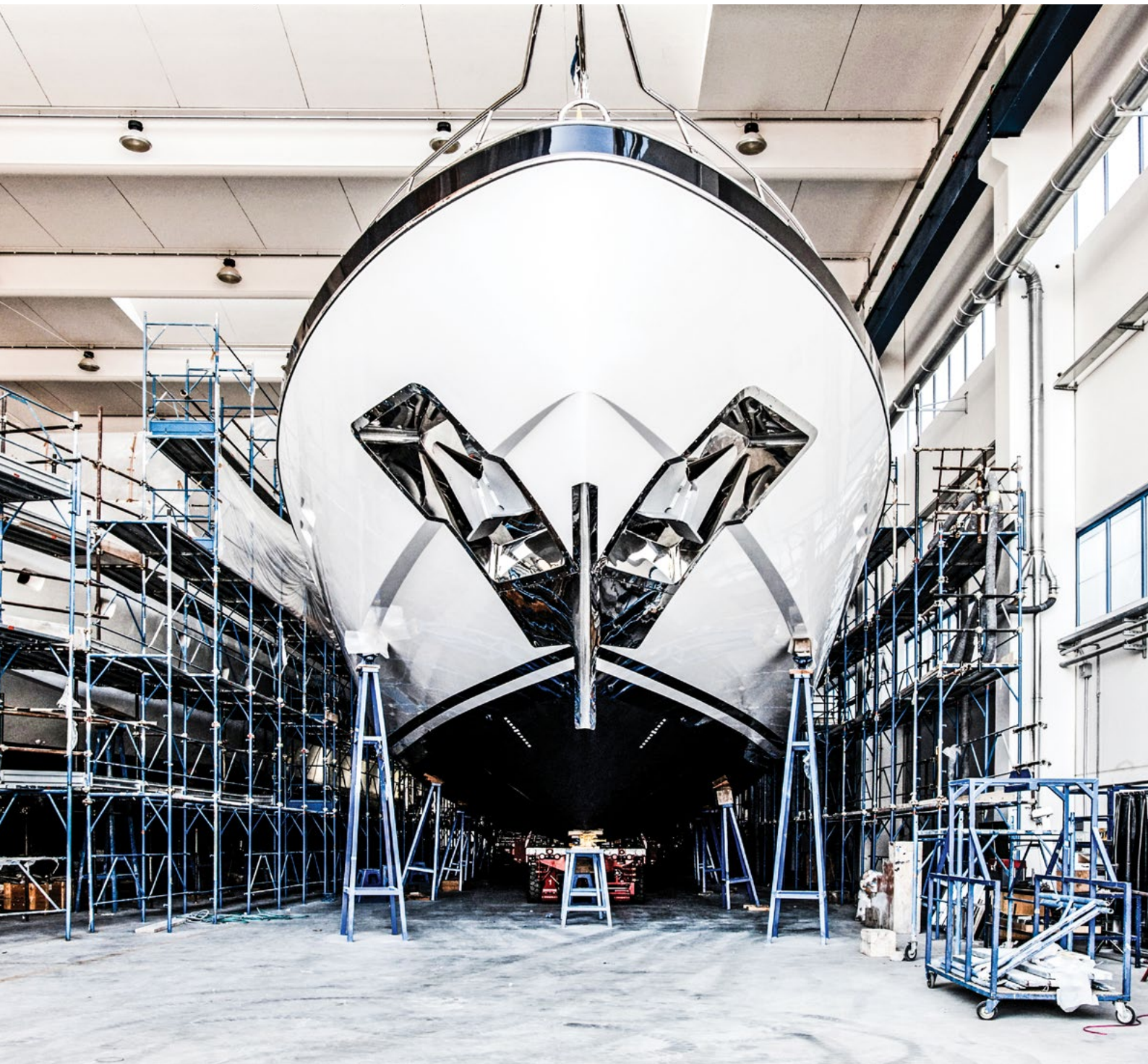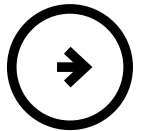**Applied to Life.™**

3M Marine Manufacturing Solutions

Standard Operating Procedure for Marine OEM

Advantage in the making

# Full line of product and process solutions for the Marine Industry

For decades 3M has developed innovative products to help solve the latest spray booth & paint process demands to help deliver on new levels of efficiency and quality for the marine industry and any substrate.

Every product and solution is backed by 3M science and our application experts to ensure optimal performance through stage of your process. From surface preparation all the way through final finish.

For every step, a solution.

3M Paint Process solutions for:

Surface Preparation

Masking & Surface Protection

Paint & Coating Application

Paint Repair & Finishing
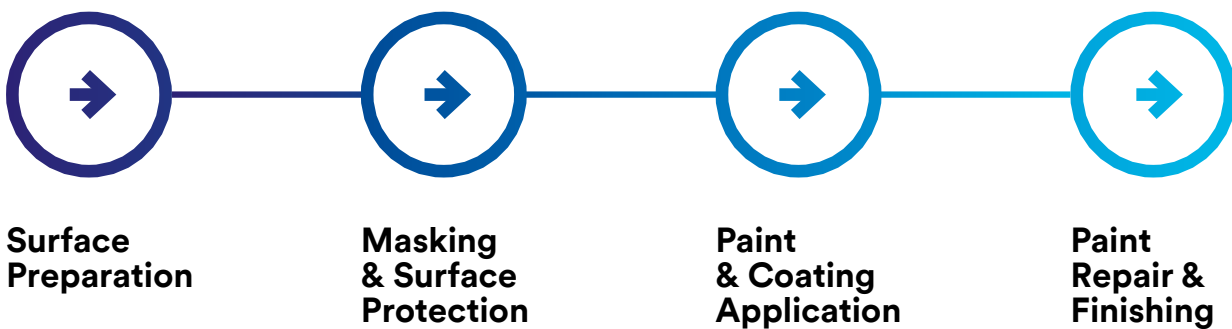
Gelcoat Surface Preparation and Masking

1 · Cleaning

Clean the new external composite surface with approved cleaner to remove all mold release materials.

Featured Product

3M™ Perfect-It™ Boat Wash

3M™ Perfect-It™ High Performance Cloth, Yellow

2 · Sanding

1. Sand the old or new gelcoat to remove surface imperfections using a DA sander with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Film Disc 775L grade 80+.
2. Apply 3M™ Dry Guide Coat to surface and re-sand gelcoat to ensure an even texture of surface is being repaired.
3. Clean the repair area with approved cleaner or blow off the repair area using pressured air.

Featured Product

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M™ Hookit™ Soft Interface Pad

3M™ Dry Guide Coat

3M Xtract™ Pneumatic Random Orbital Sanders

3 · Filler application

1. If needed, mix 3M™ Marine Blister Repair Filler per manufacturer's ecommendation.
2. First apply a tight coat then apply filling coats. Fill 85% of the cavity leaving space for 3M™ Marine Premium Filler to be applied later in the process.
3. After 30 minutes feather the repair with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 80+.
4. Apply 3M™ Dry Guide Coat to surface and re-sand gelcoat to ensure an even texture of surface is being repaired.
5. Clean the repair area with approved cleaner or blow off the repair area using pressured air.

Featured Product

3M™ Marine Blister Repair Filler

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M™ Dry Guide Coat

3M Xtract™ Pneumatic Random Orbital Sanders

4 · Final filler application

1. Mix 3M™ Marine Premium Filler according to manufacturer's specification.
2. Apply 3M™ Marine Premium Filler to the repair area making sure to apply a tight coat first.
3. After the filler has cured, sand the repair 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 120+, removing high spots in the repair.
4. Finish by sanding the repair area with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 220+

Featured Product

3M™ Marine Premium Filler

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M Xtract™ Pneumatic Random Orbital Sanders
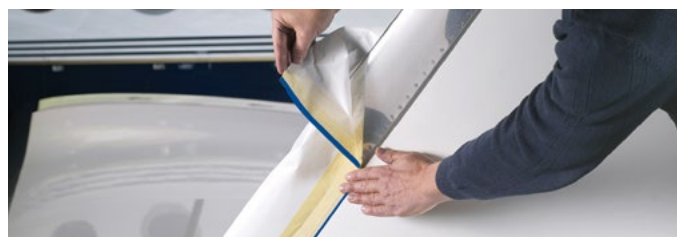
5 · Masking

1. Ensure that the surface is completely dry prior to applying 3M™ masking products.
2. Taking care to keep the repair area as small as possible, first mask the areas that require 3M™ Precision Masking Tape.
3. Mask the rest of the repair, backing up the 3M™ Precision Masking Tape with masking tape (or 301E or 244).
4. Mask entire surface with 3M™ Purple Premium Plus Masking Film.

Featured Product

3M™ Purple Premium Plus Masking Film

3M™ Precision Masking Tape

3M™ Performance Industrial Masking Tape 301E

Scotch® Performance Masking Tape 244

Gelcoat Application

1 · Gelcoat application

1. Mix gelcoat in appropriate 3M™ PPS™ Series 2.0 disposable spray cup, according to manufacturer recommendation. Remember to remove filter in the lid of disposable paint system

2. Adjust 3M™ Performance Spray Gun air pressure, fan and fluid setting to achieve desired fan pattern and atomization.

3. Hold spray gun 15cm - 20cm away from surface and apply gelcoat to the repair area according to manufacturer's recommendation for micron thickness.

Featured Product

3M™ PPS™ Series 2.0 Spray Cup System

3M™ Performance Spray Gun

3M™ Performance Gravity HVLP Atomising Head Red

3M™ Performance Industrial Spray Gun

Simple, innovative design means fewer parts to maintain. Cleanup can be as simple as wiping the tip of the needle and replacing the head, meaning no more disassembling or soaking in solvent. It's like getting a brand-new spray gun every time you put on a fresh nozzle.

» **Precision Performance**

» **78% Transfer Efficiency***

» **Cleans in Seconds**

3M Performance Gravity Atomising Head HVLP Technology

Maximum HVLP Operating Air Pressure: 1.38 bar [20 psi]
Operating Pressure Range is between 0.5 bar to 2.4 bar [7 psi to 35 psi]

3M™ PPS™ Series 2.0 Spray Cup System

*maximum transfer efficiency varies by spray gun type and settings

Gelcoat Finishing

1 · Cleaning

Clean the new external composite surface with approved cleaner to remove all mold release materials.

Featured Product

3M™ Perfect-It™ Boat Wash

3M™ Perfect-It™ High Performance Cloth, Yellow

2 · Sanding

If needed, sand gelcoat surface with 3M Xtract™ Cubitron™ II 710W Net disc or 3M Xtract™ Cubitron™ Film Disc 775L grade 320+ and then 400+. Remember to use 3M™ Hookit™ Soft Interface Pad when sanding with the 320+/400+ grade abrasive discs.

If surface is in good condition start with P800 grade 3M™ Hookit™ Flexible Abrasive Foam Discs on a dual action sander. When sanding use a 50% overlap with each pass of the sander.

Featured Product

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M™ Hookit™ Flexible Abrasive Foam Discs

3M™ Hookit™ Soft Interface Pad

3M Xtract™ Pneumatic Random Orbital Sanders

3 · Sand Scratch Refinement

Refine the P800 grade sand scratch using the P1200 grade 3M™ Hookit™ Flexible Abrasive Foam Discs or 3M Xtract™ Hookit™ Film Discs 360L on a dual action sander. When sanding use a 50% overlap with each pass of the sander.

Featured Product

3M™ Hookit™ Flexible Abrasive Foam Discs

3M™ Hookit™ Soft Interface Pad

3M Xtract™ Hookit™ Film Discs 360L

3M Xtract™ Pneumatic Random Orbital Sanders
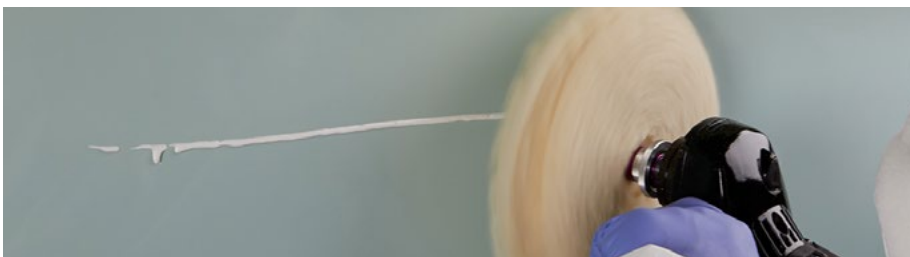
4 · Compounding

Compound the abraded surface with 3M™ Perfect-It™ Gelcoat Heavy Cutting Compound and 3M™ Perfect-It™ Low Linting Wool Compounding Pad. Use a Rotary Polishing machine at a speed of 1400 - 1800 rpm's.

Featured Product

3M™ Perfect-It™ Gelcoat Heavy Cutting

3M™ Perfect-It™ Quick Connect Double Sided Wool Compounding Pad

3M™ Electrical Buffer

3M™ Perfect-It™ High Performance Cloth, Yellow

5 · Polishing

3M™ Perfect-It™ Gelcoat Compound + Polish and 3M™ Perfect-It™ Low Linting Wool Compounding Pad. Use the rotary polishing machine at a speed of 1400 - 1800 rpm's.

Featured Product

3M™ Perfect-it™ Gelcoat Compound + Polish

3M™ Perfect-It™ Quick Connect Double Sided Wool Compounding Pad

3M™ Electrical Buffer

3M™ Perfect-It™ High Performance Cloth, Blue

6 · Protection

Apply 3M™ Perfect-It™ Boat Wax to protect the surface. When applying Boat Wax, apply in a 10cm x 10cm area and wipe area clean before the wax dries.

Featured Product

3M™ Perfect-It™ Boat Wax

3M™ Perfect-It™ High Gloss Polishing Pad

3M™ Perfect-It™ High Performance Cloth, Blue

Steps 4 & 5 can be combined in one step using the 3M™ Perfect-it™ Gelcoat compound + Polish

Other Marine Paint Surface Preparation and Masking
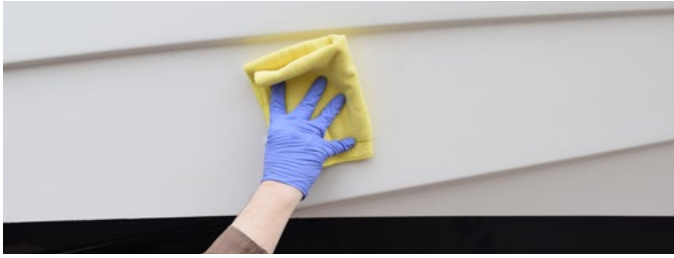
1 · Cleaning

Clean the new external composite surface with approved cleaner to remove all mold release materials

Featured Product

3M™ Perfect-It™ Boat Wash

3M™ Perfect-It™ High Performance Cloth, Yellow

2 · Sanding

1. Using a DA sander with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 80+, sand the surface to prepare for filler application.
2. Clean the surface with approved cleaner or blow off the repair area using pressured air.

Featured Product

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M Xtract™ Pneumatic Random Orbital Sanders

3 · Filler application

1. As an alternative to Epoxy Fillers use mixed 3M Marine Premium Filler per manufacturer's recommendation.
2. Apply 3M Marine Premium Filler to the surface.
3. After 30 mins (12-24hrs for Epoxy Filler) apply 3M™ Dry Guide Coat to the surface and sand the filler with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 120+.
4. Apply 3M™ Dry Guide Coat to surface and re-sand filler to ensure even texture of surface being repaired.
5. Finish by sanding filler with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 220+.
6. Clean the surface with approved cleaner or blow off the surface with pressured air.

Featured Product

3M™ Marine Premium Filler

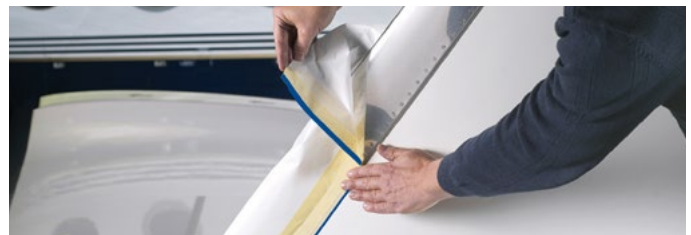3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M™ Dry Guide Coat

3M Xtract™ Pneumatic Random Orbital Sanders

4 · Masking

1. Ensure that the surface is completely dry prior to applying 3M™ masking products.
2. Taking care to keep the repair area as small as possible, mask the areas that require 3M™ Precision Masking Tape first.
3. Mask the rest of the repair, backing up the 3M™ Precision Masking Tape with masking tape (or 301E or 244).
4. Mask entire surface with 3M™ Purple Premium Plus Masking Film

Featured Product

3M™ Purple Premium Plus Masking Film

3M™ Precision Masking Tape

3M™ Performance Industrial Masking Tape 301E

Scotch® Performance Masking Tape 244

Other Marine Paint Surface Coating

1 · Primer application

1. Mix primer in appropriate 3M™ PPS™ Series 2.0 disposable spray cup.
2. Adjust 3M™ Performance Spray Gun air pressure, fan and fluid setting to achieve desired fan pattern and atomization.
3. Hold spray gun 15cm - 20cm away from surface and apply primer to the repair area according to manufacturer's recommendation for micron thickness.

Featured Product

3M™ PPS™ Series 2.0 Spray Cup System

3M™ Performance Spray Gun

3M™ Performance Gravity HVLP Atomising Head Red*

2 · Primer Sanding

1. Apply 3M™ Dry Guide Coat to surface and sand primer with 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film Disc 775L, grade 320+ to prepare for paint application.
2. Apply 3M™ Dry Guide Coat to surface.
3. Repeat sanding with 3M Xtract™ Cubitron™ II Film Disc 775L grade 400+
4. Clean the surface with approved cleaner or blow off the repair area using pressured air

Featured Product

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M™ Dry Guide Coat

3M Xtract™ Pneumatic Random Orbital Sanders
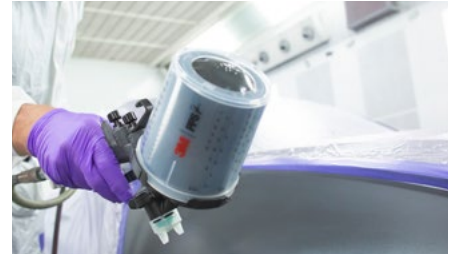
3 · Paint application

1. Mix paint in appropriate 3M™ PPS™ Series 2.0 disposable spray cup.
2. Adjust 3M™ Performance Spray Gun air pressure, fan and fluid setting to achieve desired fan pattern and atomization.
3. Hold spray gun 15cm - 20cm away from surface and apply paint to the repair area according to manufacturer's recommendation for micron thickness.

Featured Product

3M™ PPS™ Series 2.0 Spray Cup System

3M™ Performance Spray Gun

3M™ Performance Gravity HVLP Atomising Head Red*

* Maximum HVLP Operating Air Pressure: 1.38 bar [20 psi]. Operating Pressure Range is between 0.5 bar to 2.4 bar [7 psi to 35 psi]
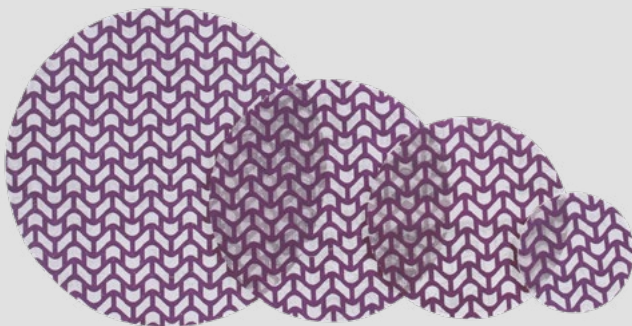
3M Xtract™ Cubitron™ II Net Sanding Discs

Your one-stop shop for all of your sanding application needs. From net discs to random orbital sanders and portable dust extraction units, we have everything you need to boost productivity and part quality in your process.

Extract up to 99% of dust.
A cleaner work environment is a safer work environment.

Less exposure to dust and fine particles

Productivity enhancements:
Less time cleaning up the work area

Improved results:
Less dust on the substrate being worked

For sanding wood, metal and composites, 3M Xtract™ net discs offer industry-leading cut-rate and help maintain a cleaner work environment, resulting in better performance and improved results.

Other Marine Paint & Clearcoat Finishing

1 · Cleaning

Clean the new external composite surface with approved cleaner to remove all mold release materials.

Featured Product

3M™ Perfect-It™ Boat Wash

3M™ Perfect-It™ High Performance Cloth, Yellow

2 · Sanding

Dry Sanding

Sand with 3M™ Hookit™ Purple Finishing Film Disc 260L+ P1200/1500 grade with DA sander and 3M™ Hookit™ Soft Interface Pad.

Wet Sanding

Sand with 3M™ Trizact™ Hookit™ Clear Coat Sanding Disc grade 1500 with DA sander and 3M™ Hookit™ Soft Interface Pad.

When using 3M™ Trizact™ Abrasives, use a light mist of water while sanding to avoid clogging of the disc.

Featured Product

3M™ Hookit™ Film Disc 260L+

3M™ Trizact™ Hookit Clear Coat Sanding Disc

3M™ Hookit™ Soft Interface Pad

3M Xtract™ Pneumatic Random Orbital Sanders

3 · Sand Scratch Refinement

Dry Sanding

1. Refine the 1200 grade abrasive sand scratches with 3M™ Hookit™ Flexible Abrasive Foam Disc P2000 grade on DA sander.
2. Clean the surface prior to compounding application.

Wet Sanding

1. Refine the 1500 grade abrasive sand scratches with 3M™ Trizact™ Hookit™ Foam Abrasive Disc 443S grade 3000 on DA sander, use 3M™ Hookit™ Soft Interface Pad. When using 3M™ Trizact™ Abrasives, use a light mist of water while sanding to avoid clogging of the disc.
2. Clean the surface prior to the compounding application.

Featured Product

3M™ Hookit™ Flexible Abrasive Foam Discs

3M™ Trizact™ Hookit Foam Abrasive Disc

3M™ Hookit™ Soft Interface Pad

3M Xtract™ Pneumatic Random Orbital Sanders

4 · Compounding

Compound the abraded surface with 3M™ Perfect-It™ Fast Cut Plus Extreme and 3M™ Perfect-It™ Low Linting Wool Compounding Pad or 3M™ Perfect-It™ Green Foam Compounding Pad. Use a Rotary Polishing machine at a speed of 1400 - 1800 rpm's.

Featured Product

3M™ Perfect-It™ Fast Cut Plus Extreme 1Kg

3M™ Perfect-It™ Quick Connect Double Sided Wool Compounding Pad

3M™ Perfect-It™ Quick Connect Double Sided Foam Convoluted Green Compounding Pad

3M™ Electrical Buffer

3M™ Perfect-It™ High Performance Cloth, Yellow

5 · Polishing

Polish compounded surface with 3M™ Perfect-It™ Ultrafina SE Polish and 3M™ Perfect-It™ Wool Polishing Pad or 3M™ Perfect-It™ Ultrafine Polishing Pad. Use the rotary polishing machine at a speed of 1400 - 1800 rpm's.

Featured Product

3M™ Perfect-It™ Ultrafina SE Polish 1L

3M™ Perfect-It™ Quick Connect Double Sided Foam Convoluted Blue Polishing Pad

3M™ Electrical Buffer

3M™ Perfect-It™ High Performance Cloth, Yellow

6 · Protection

Apply 3M™ Perfect-It™ Boat Wax to protect the surface. When applying Boat Wax, apply in a 10cm x 10cm area and wipe area clean before the wax dries.

Featured Product

3M™ Perfect-It™ Boat Wax

3M™ Perfect-It™ High Gloss Polishing Pad

3M™ Perfect-It™ High Performance Cloth, Blue

Marine Bottom Paint (Antifouling) Surface Preparation, Masking & Coating

1 · Cleaning

Clean the surface with approved cleaner to remove and surface pollution.

Featured Product

3M™ Perfect-It™ Boat Wash

3M™ Perfect-It™ High Performance Cloth, Yellow

2 · Sanding

1. Sand the bottom surface using a dual action sander 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 220+ to prepare surface for bottom paint.
2. Clean the repair area with approved cleaner or blow off the repair area using pressured air

Featured Product

3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M Hookit™ Soft Interface Pad

3M Xtract™ Pneumatic Random Orbital Sanders

3 · Filler application

1. Mix 3M™ Marine Premium Filler according to manufacturer's specification.
2. Apply 3M™ Marine Premium Filler to the repair area making sure to apply a tight coat first.
3. After the filler has cured, sand the repair with sander 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 120+ , removing high spots in the repair.
4. Finish by sanding the repair area with sander 3M Xtract™ Cubitron™ II Net Disc 710W or 3M Xtract™ Cubitron™ II Film disc 775L grade 220+

Featured Product

3M™ Marine Premium Filler
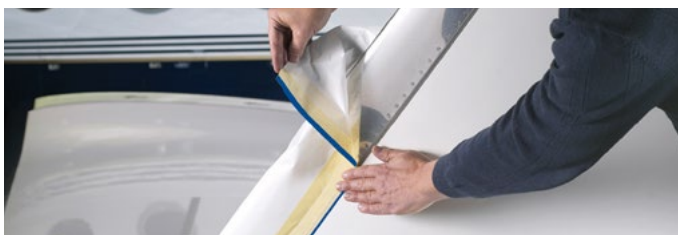
3M Xtract™ Cubitron™ II Net Disc 710W

3M Xtract™ Cubitron™ II Film Disc 775L

3M™ Dry Guide Coat

3M Xtract™ Pneumatic Random Orbital Sanders

4 · Masking

1. Ensure that the surface is completely dry prior to applying 3M™ masking products.
2. Taking care to keep the repair area as small as possible, mask the areas that require 3M™ Precision Masking Tape first.
3. Mask the rest of the repair, backing up the 3M™ Precision Masking Tape with masking tape (or 301E or 244).
4. Mask entire surface with 3M™ Purple Premium Plus Masking Film

Featured Product

3M™ Purple Premium Plus Masking Film

3M™ Precision Masking Tape

3M™ Performance Industrial Masking Tape 301E

Scotch® Performance Masking Tape 244

5 · Bottom paint application

1. Mix bottom paint in appropriate 3M™ PPS™ Series 2.0 disposable spray cup, according to manufacturer recommendation. Remember to remove filter in the lid of disposable paint system
2. Adjust 3M™ Performance Spray Gun air pressure, fan and fluid setting to achieve desired fan pattern and atomization.
3. Hold spray gun 15cm - 20cm away from surface and apply bottom paint to the repair area according to manufacturer's recommendation for micron thickness.

Featured Product

3M™ PPS™ Series 2.0 Spray Cup System

3M™ Performance Spray Gun

3M™ Performance Gravity HVLP Atomising Head Red*

* Maximum HVLP Operating Air Pressure: 1.38 bar [20 psi]. Operating Pressure Range is between 0.5 bar to 2.4 bar [7 psi to 35 psi]

Make every move count.

Your touch. Our technology. Together, we're unstoppable.

Also, think about your health. 3M offers a wide variety of personal protective equipment to ensure you stay safe no matter the application or job and depending on local regulations.

Please always consult national regulations for suitable Personal Protective Equipment (PPE) for use against hazards, including isocyanates. PPE shown may not be adequate or suitable for your specific application or substances used.

Contact your local 3M Marine Expert to learn more.

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transportation-uk/marine-gateway/

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