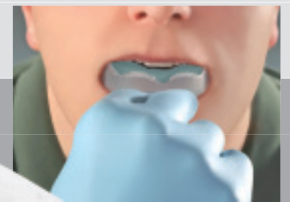
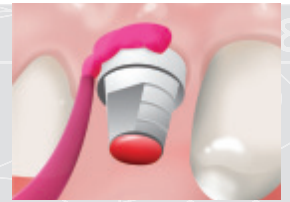
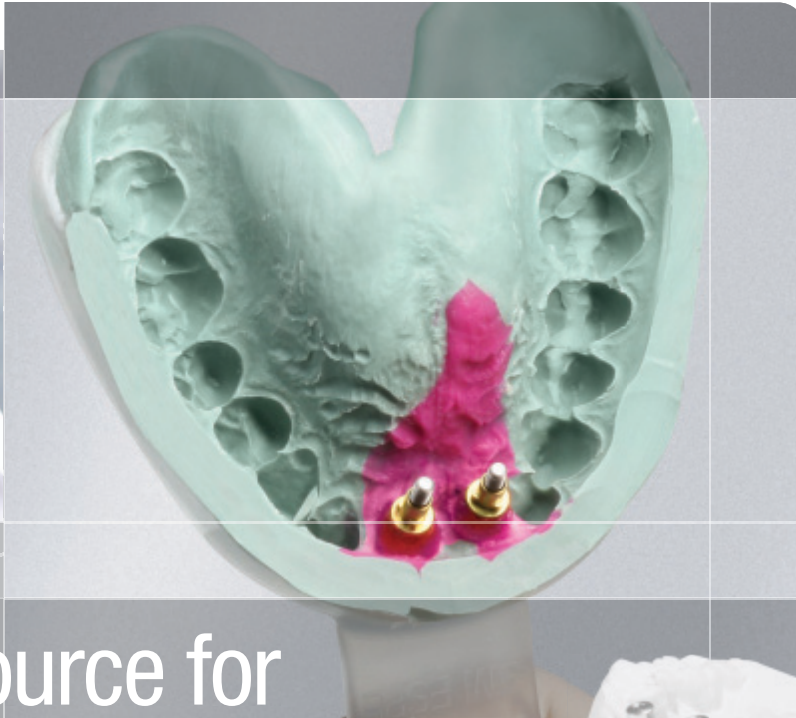


Impression Material Technique Guide



Your source for
implant impressions



Implants

Impregum™ Penta™ Soft Polyether Impression Materials

Summary of advantages

- **Intrinsic hydrophilicity** – best detail reproduction in a moist environment
- **Excellent flow properties** – enables intimate contact with transfer coping
- **Rigidity** – secures implant coping position

An accurate impression for a precise-fitting implant.

With a rapidly aging population, dental implants are fast becoming a preferred restoration for permanent tooth replacement. If you're among the growing number of doctors who are incorporating implants into their practice, here's good news. 3M ESPE, the worldwide leader in impression solutions, has developed products and simplified procedures to help you achieve outstanding functional and esthetic results.

Your initial impression is critical because:

- In order for you to achieve accurate fabrication of an implant-retained prosthesis, the impression must record an exact registration of the relative position and orientation of the implant to other implants, teeth and soft tissue.
- A technician uses it to create a highly precise stone model or digital impression that becomes the basis for your entire implant treatment plan.

3M ESPE impression materials provide excellent detail for accurate implant impressions.

The implant treatment plan can only be as accurate as your impression. The performance and detail reproduction of 3M ESPE impression materials help you:

- **Achieve a detailed impression on the first take.**
Whether using an open or closed tray technique, or making implant- or abutment-level impressions, a detailed impression reduces the chance of costly retakes.
- **Capture impressions of transfer copings with confidence.**
Ensure the precise orientation and position of the implant in the mouth.

The choice is yours.

Whether you prefer polyether or VPS impression material, 3M ESPE, the worldwide leader in impression materials, has you covered.



Achieve excellent impression results using any implant system you choose.

A number of implant companies offer excellent implant options to choose from. No matter what system you prefer, using a 3M ESPE impression material can help you achieve your desired outcome, using the technique you determine is best for the indication.

Impression Technique and Material Recommendations

There are numerous impression techniques for making implant impressions. 3M ESPE has highlighted three common techniques, along with impression material recommendations for each, to assist clinicians in making this critical decision.

Technique: Closed Tray Indirect Transfer Impression Technique

Material: Imprint™ 3 VPS Impression Materials

Technique: Open Tray Direct Pick-Up Impression Technique

Material: Impregum™ Penta™ Soft Polyether Impression Materials

Technique: Closed Tray Direct Snap-On Impression Technique

Material: Imprint 3 VPS Impression Materials, OR Impregum Penta Soft Polyether Impression Materials

Impression Tray Recommendations

For cases with 1 or 2 implant units:

Use a 3M™ ESPE™ Directed Flow Impression Tray.

- 
- **Transparent, and easy to customize** – you can cut windows for Open Tray indications
 - **Self-adhesive** – no tray adhesive is required
 - **Distal flow stops** – help ensure you capture detail on the 2nd molars
 - **The “spoiler” on the upper arch tray** – traps excess material to reduce gagging while it deflects material toward lingual tooth surfaces

For multiple implants or for edentulous situations:

Use a rigid custom tray.

- Prepare the tray with the appropriate tray adhesive to ensure reliable adhesion of the impression material

Imprint™ 3 VPS Impression Material

Summary of advantages

- **Memory** – best in class elastic recovery resists distortion for a more accurate transfer impression
- **Toughness** – resists tearing upon removal from mouth
- **Best balance of clinical properties** – no sacrifice of one property for another means better final impressions

Closed Tray Indirect Transfer Impression Technique

In this technique, the indirect transfer coping remains on the implant during removal of the set impression from the mouth. Once the impression has been removed, the coping is removed from the implant and connected with the implant analog. The coping/analog assembly is then indexed (transferred) back into its corresponding position in the impression.

Recommended material:
Imprint™ 3 VPS
Impression Material

Implant Impression Tips

Common causes for retakes:

Distorted impression: To prevent distortion, stabilize the tray while material is setting

Voids and bubbles: Use enough material and keep tip submerged in extruded material

Insufficient capture of detail around coping: Syringe material without creating air bubbles around copings by keeping mix tip submerged



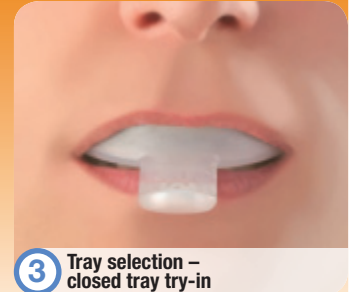
1 Removal of healing abutment

- Remove healing abutment
- Confirm prosthetic platform is free of bone debris or soft tissue
- Seat the coping and secure it – using the method recommended by the implant manufacturer



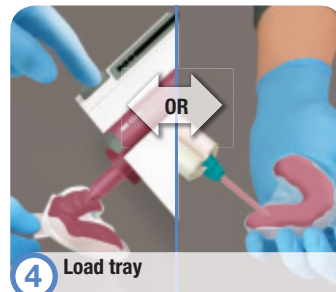
2 Placement of transfer coping

- Verify correct seating of the coping with a radiograph
- Block out hex-hole with material of choice



3 Tray selection – closed tray try-in

- Try-in the tray
- Ensure there is appropriate clearance for entire arch
- Evaluate tray-coping fit, ensuring there is no impingement/interference



4 Load tray

- Load the tray material after using proper bleeding technique
- Keep the mix tip submerged in the tray material to prevent voids
- **Do not under-fill the tray**



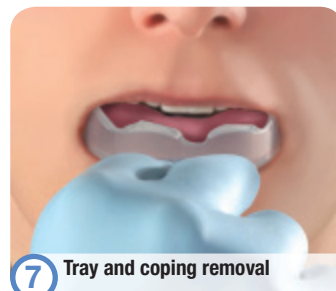
5 Syringe around coping

- While loading the tray, syringe the wash material around the coping, and ensure continuous flow around the entire coping
- Keep the mix tip submerged in the wash material at all times to avoid trapping air bubbles



6 Tray seating and immobilization

- Insert the loaded tray straight and evenly into mouth – avoid rotation
- Don't let patient bite down on tray
- Immobilize the tray using passive pressure
- Follow the recommended setting time in the mouth – using a timer



7 Tray and coping removal

- Remove tray from mouth carefully after end of setting time
- Remove coping assembly from implant after tray has been removed, following implant manufacturer's instructions
- Replace healing abutment immediately to prevent soft tissue collapse
- Assemble coping with implant analog



8 Evaluate final impression with coping inserted (indexed)

- Rinse impression before inspection
- Evaluate the impression for correct transfer and common impression errors (see side bar on this page)
- Insert coping assembly into impression
- Ensure the coping is properly aligned (indexed) within the impression
- Dry and disinfect impression before shipping



9 Bite registration

- Apply a layer of 3M™ ESPE™ Imprint™ Bite Material with a thickness of approximately 5mm occlusal-incisally to the entire lower arch
- Have patient bite into proper occlusion
- Disinfect prior to shipping
- Make an impression of the opposing arch and submit it with case

Open Tray Direct Pick-Up Impression Technique

In this technique, the direct transfer coping gets “picked up,” and remains in the set impression upon removal from the mouth. Once the impression has set, the screw holding the coping on the implant is accessed through the hole above/below the implant in the open tray and unscrewed to allow removal of the impression from the mouth. Once outside of the mouth, the implant analog is connected to the transfer coping prior to pouring the stone model.

Recommended material:
Impregum™ Penta™ Soft
Polyether Impression
Material

Implant Impression Tips

Common causes for retakes:

Distorted impression: To prevent, stabilize tray as material is setting

Voids and bubbles: Use enough material and keep tip submerged in extruded material

(Pick-up technique) Tray-abutment contact: Widen implant windows in tray



1 Removal of healing abutment

- Remove healing abutment
- Confirm prosthetic platform is free of bone debris or soft tissue
- Seat the coping and secure it – using the method recommended by the implant manufacturer



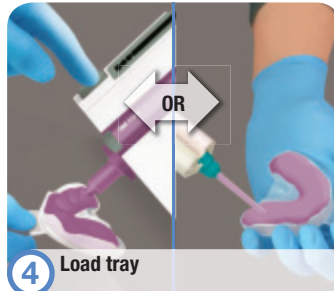
2 Placement of transfer coping

- Verify correct seating of the coping with a radiograph



3 Tray selection – open tray try-in

- Try-in the tray and create access window
- Ensure there is appropriate clearance for entire arch with no contact between tray and tissue
- Evaluate tray-coping fit, ensuring there is enough clearance for coping to fit easily through window in tray



4 Load tray

- Load the tray material after using proper bleeding technique
- Keep the mix tip submerged in the tray material to prevent voids
- **Do not under-fill the tray**



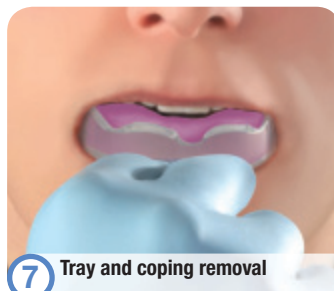
5 Syringe around coping

- While loading the tray, syringe the wash material around the coping, and ensure continuous flow around the entire coping
- Keep the mix tip submerged in the wash material at all times to avoid trapping air bubbles



6 Tray seating and immobilization

- Insert the loaded tray straight and evenly into mouth – avoid rotation
- Don't let patient bite down on tray
- Immobilize the tray using passive pressure
- Follow the recommended setting time in the mouth – using a timer



7 Tray and coping removal

- Once impression material has set, remove screw holding coping in place, following implant manufacturer's instructions
- Remove tray from mouth carefully, with coping embedded in the set impression
- Replace healing abutment immediately to prevent soft tissue collapse



8 Evaluate final impression with coping inserted (indexed)

- Rinse impression before inspection
- Evaluate the impression for correct transfer and common impression errors (see side bar on this page)
- Attach the implant analog to coping embedded in the impression
- Dry and disinfect impression before shipping



9 Bite registration

- Apply a layer of 3M ESPE Imprint Bite Material with a thickness of approximately 5mm occlusal-incisally to the entire lower arch
- Have patient bite into proper occlusion
- Disinfect prior to shipping
- Make an impression of the opposing arch and submit it with case

Closed Tray Direct Snap-On Impression Technique

The snap-on procedure is best described as a hybrid between the two techniques shown previously. In this closed tray procedure, the direct transfer coping “snaps-on” to the top of the implant abutment in the mouth. Once the impression has set, the coping becomes embedded in the impression and is pulled off of the implant abutment when the set impression is removed from the mouth. Once outside of the mouth, the implant analog is connected to the transfer coping prior to pouring the stone model.

Recommended material:
Imprint™ 3 VPS Impression Material

Or

Impregum™ Penta™ Soft Polyether Impression Material

Implant Impression Tips

Common causes for retakes:

Distorted impression: To prevent, stabilize the tray while material is setting

Voids and bubbles: Use enough material and keep tip submerged in extruded material

(Snap-on technique) Coping-tray contact: Try-in the tray prior to making impressions and ensure proper size



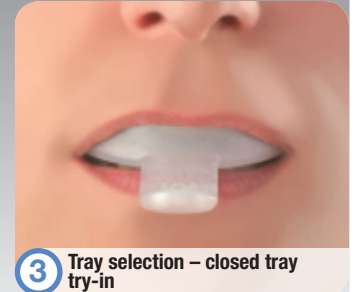
1 Removal of healing abutment

- Remove healing abutment
- Confirm prosthetic platform is free of bone debris or soft tissue



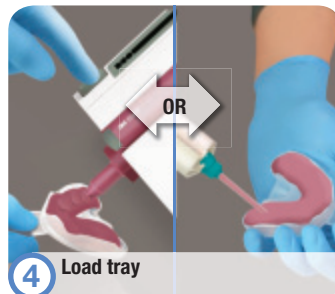
2 Placement of transfer coping

- Seat the abutment and secure it – using the method recommended by the implant manufacturer
- Attach the snap-on transfer coping assembly (see completed assembly in step 5)



3 Tray selection – closed tray try-in

- Try-in the tray
- Ensure there is appropriate clearance for entire arch
- Evaluate tray-coping fit, ensuring there is no impingement/interference



4 Load tray

- Load the tray material after using proper bleeding technique
- Keep the mix tip submerged in the tray material to prevent voids
- **Do not under-fill the tray**



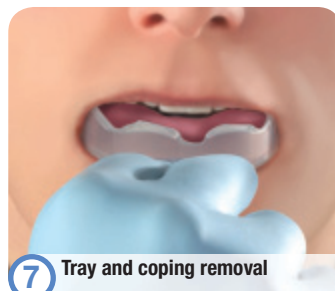
5 Syringe around coping

- While loading tray, syringe the wash material around the coping, and ensure continuous flow around the entire coping
- Keep the mix tip submerged in the wash material at all times to avoid trapping air bubbles



6 Tray seating and immobilization

- Insert the loaded tray straight and evenly into mouth – avoid rotation
- Don't let patient bite down on tray
- Immobilize the tray using passive pressure
- Follow the recommended setting time in the mouth – using a timer



7 Tray and coping removal

- Once impression material has set, remove tray from mouth carefully, with snap-on coping embedded in the set impression
- Depending on the implant system used, either
 - A) Replace healing abutment immediately to prevent soft tissue collapse, OR
 - B) Create the appropriate temporary restoration to protect the abutment
- Assemble coping with implant analog



8 Evaluate final impression with coping inserted (indexed)

- Rinse impression before inspection
- Evaluate the impression for correct transfer and common impression errors (see side bar on this page)
- Dry and disinfect impression before shipping



9 Bite registration

- Apply a layer of 3M™ ESPE™ Imprint™ Bite Material with a thickness of approximately 5mm occlusal-incisally to the entire lower arch
- Have patient bite into proper occlusion
- Disinfect prior to shipping
- Make an impression of the opposing arch and submit it with case

Ordering Information

Impregum™ Penta™ Soft Polyether Impression Material

Item #	Product Information
P31739	Impregum™ Penta™ Soft Heavy Body/Light Body Introductory Kit Kit Includes: 1 base paste HB – 300ml; 1 catalyst HB – 60ml; 1 Penta cartridge HB; 10 Penta mixing tips, red; 2 cartridges LB – 50ml; 10 cartridge mixing tips, white; 10 intraoral tips, white; 1 cartridge dispenser; 1 polyether tray adhesive – 17ml
P31779	Impregum™ Penta™ Soft Quick Step Heavy Body/Light Body Introductory Kit Kit Includes: 1 base paste HB – 300ml; 1 catalyst HB – 60ml; 1 Penta cartridge HB; 10 Penta mixing tips, red; 10 cartridge mixing tips, white; 10 intraoral tips, white; 1 polyether tray adhesive – 17ml; 2 cartridges LB – 50ml
P31735	Impregum™ Penta™ Soft Medium Body Introductory Kit Kit Includes: 1 base paste MB – 300ml; 1 catalyst MB – 60ml; 1 Penta cartridge MB; 10 Penta mixing tips, red; 1 Penta elastomer syringe; 1 polyether tray adhesive – 17ml
P31771	Impregum™ Penta™ Soft Quick Step Medium Body Introductory Kit Kit Includes: 1 base paste MB – 300ml; 1 catalyst MB – 60ml; 1 Penta cartridge MB; 10 Penta mixing tips, red; 1 Penta elastomer syringe; 1 polyether tray adhesive – 17ml
P31685	Impregum™ Penta™ Medium Body Introductory Kit Kit Includes: 1 base paste MB – 300ml; 1 catalyst MB – 60ml; 1 Penta cartridge MB; 10 Penta mixing tips, red; 1 elastomer syringe; 1 polyether tray adhesive – 17ml
31741	Impregum™ Penta™ Soft Heavy Body Refill Pack 2 base paste – 300ml; 2 catalyst – 60ml

Item #	Product Information
31769	Impregum™ Penta™ Soft Quick Step Heavy Body Refill Pack 2 base paste – 300ml; 2 catalyst – 60ml
31731	Impregum™ Penta™ Soft Medium Body Refill Pack 2 base paste – 300ml; 2 catalyst – 60ml
31765	Impregum™ Penta™ Soft Quick Step Medium Body Refill Pack 2 base paste – 300ml; 2 catalyst – 60ml
31642	Impregum™ Penta™ Medium Body Refill Pack 2 base paste – 300ml; 2 catalyst – 60ml
31746	Impregum™ Penta™ Soft Light Body Refill Pack 2 base paste – 300ml; 2 catalyst – 60ml
31767	Impregum™ Penta™ Soft Quick Step Light Body Refill Pack 4 cartridges – 50ml; 20 cartridge mixing tips, white
31752	Impregum™ Soft Light Body Refill Pack 4 cartridges – 50ml; 20 cartridge mixing tips, white
30500	Polyether Retarder Refill Pack 1 – 8ml tube (Prolongs working time up to 1 minute)
71512	50 Penta™ Mixing Tips, Red
71451	50 Cartridge Polyether Mixing Tips, White
71461	50 Cartridge Polyether Intraoral Tips, White

Imprint™ 3 VPS Impression Material

Item #	Product Information
10770	Imprint™ 3 Heavy Body/Light Body Intro Kit Kit includes: 2 cartridges HB – 50ml; 1 cartridge RB – 50ml; 1 cartridge LB – 50ml; 10 cartridge mixing tips, green; 10 cartridge mixing tips, yellow; 10 intraoral tips, yellow; 1 VPS adhesive – 17ml
P310770	Imprint™ 3 Penta™ Heavy Body/Light Body Intro Kit Kit includes: 1 base paste HB – 300ml; 1 catalyst paste HB – 60ml; 1 Penta cartridge HB; 10 Penta mixing tips, red; 1 cartridge RB – 50ml; 1 cartridge LB – 50ml; 10 cartridge mixing tips, green; 10 cartridge mixing tips, yellow; 10 intraoral tips, yellow; 1 VPS adhesive – 17ml
10970	Imprint™ 3 Quick Step Heavy Body/Light Body Intro Kit Kit includes: 2 cartridges HB – 50ml; 1 cartridge RB – 50ml; 1 cartridge LB – 50ml; 10 cartridge mixing tips, green; 10 cartridge mixing tips, yellow; 10 intraoral tips, yellow; 1 VPS adhesive – 17ml
P310790	Imprint™ 3 Penta™ Quick Step Heavy Body/Light Body Intro Kit Kit includes: 1 base paste HB – 300ml; 1 catalyst paste HB – 60ml; 1 Penta cartridge HB; 10 Penta mixing tips, red; 1 cartridge RB – 50ml; 1 cartridge LB – 50ml; 10 cartridge mixing tips, green; 10 cartridge mixing tips, yellow; 10 intraoral tips, yellow; 1 VPS adhesive – 17ml
10771	Imprint™ 3 Heavy Body Refill 4 cartridges HB – 50ml; 10 mixing tips, green
10971	Imprint™ 3 Quick Step Heavy Body Refill 4 cartridges HB – 50ml; 10 mixing tips, green
10771PH	Imprint™ 3 Penta™ Heavy Body Refill 2 base paste – 300ml; 2 catalyst – 60ml
10971PH	Imprint™ 3 Penta™ Quick Step Heavy Body Refill 2 base paste – 300ml; 2 catalyst – 60ml

Item #	Product Information
10781	Imprint™ 3 Monophase (Medium Body) Refill 4 cartridges MB – 50ml; 10 cartridge mixing tips, green
36956	Imprint™ 3 Ultra-Regular Body Wash Refill 4 cartridges URB – 50ml; 20 mixing tips, yellow
36955	Imprint™ 3 Quick Step Ultra-Regular Body Wash Refill 4 cartridges URB – 50ml; 20 mixing tips, yellow
10779	Imprint™ 3 Regular Body Wash Refill 4 cartridges RB – 50ml; 20 mixing tips, yellow
10979	Imprint™ 3 Quick Step Regular Body Wash Refill 4 cartridges RB – 50ml; 20 mixing tips, yellow
10778	Imprint™ 3 Light Body Wash Refill 4 cartridges LB – 50ml; 20 mixing tips, yellow
10978	Imprint™ 3 Quick Step Light Body Wash Refill 4 cartridges LB – 50ml; 20 mixing tips, yellow
36850	Imprint™ Bite Registration Material Refill 4 cartridges – 50ml; 20 cartridge mixing tips, green
71512	50 Penta™ Mixing Tips, Red
71450	50 Cartridge Mixing Tips, Green
71452	50 Cartridge Mixing Tips, Yellow
71460	50 Cartridge Intraoral Tips, Bite
71462	50 Cartridge Intraoral Tips, Yellow

Directed Flow Impression Tray

Item #	Product Information
Refill Pack — Upper	
71615	10 Trays, Size Small (S), Upper
71616	10 Trays, Size Medium (M), Upper
71617	10 Trays, Size Large (L), Upper

Item #	Product Information
Refill Pack — Lower	
71618	10 Trays, Size Small (S), Lower
71619	10 Trays, Size Medium (M), Lower
71620	10 Trays, Size Large (L), Lower

Products designed for the way you like to work ...

For every implant indication, you'll find a 3M ESPE polyether or VPS impression material to suit your technique and procedure. Choose from a wide range of viscosities and set/working times – in both cartridge and Penta™ deliveries.

More proven solutions brought to you by 3M ESPE, the worldwide leader in impression materials.



Impregum™

Penta™ Soft Polyether
Impression Material

Be confident you'll get accurate detail ... even in moist conditions.

Summary of advantages

- **Initially hydrophilic** to provide void-free impressions in moist conditions
- **Excellent flow property** captures fine details that lead to precise-fitting restorations
- **Snap-set behavior** of Soft polyether is ultra-forgiving
- **Excellent rigidity** – secures implant coping position
- **Quick Step material cuts working and setting times by at least 33% over Impregum Penta Soft Polyether Impression Material**

Imprint™ 3

VPS Impression Material

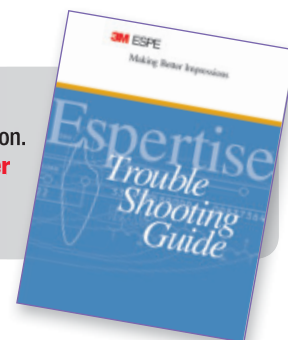
Make impressions that resist distortion for precise-fitting restorations.

Summary of advantages

- **Best balance of clinical properties**, compared to other leading brands
- **Better memory** than leading VPS brands – with nearly 100% recovery from elongation, it's less likely to distort upon removal from the mouth
- **More hydrophilic** than most leading VPS materials, helping you capture accurate detail in a moist environment
- **Tougher** than many leading brands, which helps impressions hold true and resist tearing during removal

Make Better Impressions

Even the most experienced practitioner, using the best materials, can encounter difficulties when making an impression. 3M ESPE has taken its long history in developing and testing impression materials, and assembled the **Making Better Impressions Troubleshooting Guide**. It identifies common impression problems and offers solutions. To get your FREE copy, download it now from our website – or call Customer Care at 1-800-634-2249, ext. 1.



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70-2009-3887-9 (881.5) DPI

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