

RTV Sealing Surface Cleaning and Preparation

Special Tool(s) / General Equipment

Plastic Scraper
Nylon Bristle Disk
Plastic Razor Blade
Lint-Free Towel
Isopropyl Alcohol â€” 90 Percent Minimum

Materials

Name	Specification
Motorcraft® Silicone Gasket Remover ZC-30-A	-
Motorcraft® Metal Surface Prep Wipes ZC-31-B	-
Motorcraft® Engine Shampoo and Degreaser ZC-20	ESR-M14P3-A
Motorcraft® Metal Brake Parts Cleaner PM-4-A, PM-4-B	-

Cleaning

NOTICE: This procedure is only to be used on the sealing surfaces of metal components. Do not use this procedure on non-metal (composite/plastic) components. Failure to follow this direction can lead to malfunction of the RTV seal and fluid leakage.

NOTICE: Place clean, lint-free towels over exposed cavities. Carefully remove the towels so foreign material is not dropped into the cavities. Any foreign material (including any material created while cleaning surfaces) that enters the fluid passages, may cause failure.

NOTICE: Do not use metal scrapers, wire brushes, power sanding or grinding discs, or any abrasive means other than what is specified in this procedure to clean sealing surfaces. These tools cause scratches and gouges which make leak paths.

NOTICE: The order of use of materials to clean surfaces in this procedure is as follows:

1. Motorcraft® Gasket Remover
2. Motorcraft® Metal Brake Parts Cleaner
3. Motorcraft® Engine Shampoo and Degreaser
4. Motorcraft® Metal Surface Prep Wipes

Failure to follow this order will result in failure of the RTV seal and a fluid leak.

NOTICE: The use of latex gloves is recommended. Using latex gloves will minimize the risk of contaminating RTV sealing surfaces and a leak.

NOTE: Bristle discs such as 3M[®], [®] Roloc[®] Bristle Disk grade 120, part number 18733 are acceptable to use for parts that are removed from the engine and vehicle and can be thoroughly washed and cleaned of debris caused by the tool itself and any other debris before installing the part on the engine.

NOTE: Click here to view a video version of the RTV Sealing Surface Cleaning and Preparation procedure.

RTV Sealing Surface Cleaning and Preparation procedure



1. **NOTE:** This step is to help prevent contamination of an RTV sealing surface from drain down after it has been prepared.

For oil pan repairs where residual engine oil in the crankcase may drain down and contaminate a prepared sealing surface, spray the interior of the engine block, skirt stiffener and drain back ports with Motorcraft Metal Brake Parts Cleaner to flush away any excess residual oil. Use a lint-free towel to remove the remainder of the bulk oil cleaner from the components.

Use the General Equipment: Lint-Free Towel

Material: Motorcraft® Metal Brake Parts Cleaner / PM-4-A, PM-4-B

2. Remove loose sealant by hand or with the aid of a plastic scraper or plastic razor blade.

Use the General Equipment: Plastic Scraper

Use the General Equipment: Plastic Razor Blade

3. Apply Motorcraft® Silicone Gasket Remover to surface. Allow material to work for several minutes.

Material: Motorcraft® Silicone Gasket Remover / ZC-30-A

4. Use a lint-free towel and plastic scraper or plastic razor blade to remove any remaining sealant. Use additional Motorcraft® Silicone Gasket Remover, as required.

Use the General Equipment: Lint-Free Towel

Use the General Equipment: Plastic Scraper

Use the General Equipment: Plastic Razor Blade

Material: Motorcraft® Silicone Gasket Remover / ZC-30-A

5. For parts that are removed from the engine and vehicle that can be thoroughly cleaned without the risk of contaminating the engine with debris, use a bristle disc such as 3M[®], [®] Roloc[®] Bristle Disk grade 120, part number 18733, or equivalent, to clean the sealing surface.

Use the General Equipment: Nylon Bristle Disk

6.
 - For oil pan repairs, spray the interior of the engine block, skirt stiffener and drain back ports with Motorcraft Metal Brake Parts Cleaner to flush away any additional residual oil.

Material: Motorcraft® Metal Brake Parts Cleaner / PM-4-A, PM-4-B

- Use a lint-free towel to remove the remainder of the bulk oil and cleaner from the components.
Use the General Equipment: Lint-Free Towel
- Clean the RTV sealing surface with Motorcraft® Metal Brake Parts Cleaner to remove all residual sealant and oil.
Material: Motorcraft® Metal Brake Parts Cleaner / PM-4-A, PM-4-B
- Wipe the RTV sealing surface dry with a clean lint-free towel.
Use the General Equipment: Lint-Free Towel
- Inspect and make certain there are no oil contaminants on the sealing surface before proceeding to step 7.

7. **NOTICE: Motorcraft® Engine Shampoo and Degreaser is used to remove residual brake cleaner which can cause RTV failure and prepare the surface for the Motorcraft® Metal Surface Prep Wipes. The use of any other brand engine shampoo or engine cleaner can compromise the sealing surface and could lead to failure of the RTV seal and a fluid leak.**

Use Motorcraft® Engine Shampoo and Degreaser to clean the surface of any remaining oil contamination and prepare the surface for the Motorcraft® Metal Surface Prep Wipes. After Motorcraft® Engine Shampoo and Degreaser, dry the surface with a clean lint-free towel.

Use the General Equipment: Lint-Free Towel

Material: Motorcraft® Engine Shampoo and Degreaser / ZC-20 (ESR-M14P3-A)

8. **NOTICE: Motorcraft® Metal Surface Prep Wipes can only be applied to a dry surface. Failure to dry the sealing surface before using Motorcraft® Metal Surface Prep Wipes can result in a failure of the RTV seal and a fluid leak.**

NOTE: Motorcraft® Metal Surface Prep Wipes is a pre-saturated, wet disposable wipe to be used as a final step in surface preparation. The wipe fluid creates a conversion coating providing an improved base for RTV sealing. The fluid should be allowed to dry in place. It does not require rinsing.

NOTE: Discard wipe after a single use.

Prep the surface with Motorcraft® Metal Surface Prep Wipes. All metal surfaces to be sealed with RTV are to be wiped. Make sure the entire surface is moistened with the fluid.

Material: Motorcraft® Metal Surface Prep Wipes / ZC-31-B

9. **NOTICE: Drying the surface with a towel will contaminate the surface and may cause oil leaks.**

NOTICE: If the metal sealing surface or an area of the metal sealing surface becomes contaminated after it has been prepared, or if fluid from the Metal Surface Prep Wipe beads up on the sealing surface, use a lint-free towel soaked in isopropyl alcohol to clean the area. Prepare the area again using Motorcraft® Metal Surface Prep Wipes.

Allow the fluid applied to the metal sealing surface to air dry. (Approximately 2 minutes.)

Use the General Equipment: Isopropyl Alcohol â€” 90 Percent Minimum

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