

AUTOMOTIVE REFINISHING TECHNOLOGY NYS



Please note not all areas of national contest hands on content will be covered, but we will try to add more areas as contest sight space and time limits allows in the future.

PURPOSE

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of automotive refinishing technology.

CLOTHING REQUIREMENT

White crew neck short-sleeved T-shirt, work pants, safety glasses with side shields or goggles, leather or steel-toed work shoes, hair must be contained. (Prescription glasses can be used only if they are equipped with side shields. If not, they must be covered with goggles.)

Note: Contestants must wear their official contest clothing to the contest orientation meeting. Also bring #2 pencil, resume, and safety assurance form.

ELIGIBILITY

Open to active SkillsUSA members enrolled in programs with automotive refinishing technology as the occupational objective.

EQUIPMENT AND MATERIALS

1. Supplied by the technical committee: Basic equipment of an automotive refinishing laboratory
 - a. Various grits of sandpaper/grinding discs
 - b. Prep scuffing gel
 - c. Clean-up thinner
 - d. Color
 - e. Strainers
 - f. Reducer
 - g. Paint
 - h. Primer sealer
 - i. Clear coats
 - j. DA sander pads

- k. Abrasive sanding pads
 - l. Ultra fine sandpaper
 - m. Wooden paint paddles
 - n. Necessary masking materials
 - o. Paint guns for primer, base coat, and clear coat
 - p. Razor blades
 - q. Cleaning towels
 - r. Tack cloths
2. Supplied by the contestant:
 - a. 6" DA sander
 - b. Cartridge-type respirator (charcoal-filtered)
 - c. Paint suit nitrile gloves for repair and painting.
 - d. Hook-it and sticky back DA pad
 - e. $9/16$ " and $5/8$ " wrenches
 - f. Air pressure gauge (spray gun)
 - g. DA pad wrench
 - h. Sanding pads
 - i. Sanding blocks
 - j. All competitors must create a one-page résumé using a word processor. Resume to be handed in at the orientation meeting.
 - k. **Note:** Your contest may also require a hard copy of your résumé as part of the actual contest. Check the Contest Guidelines and/or the updates page on the NYS SkillsUSA Web site:
<http://www.nysskillsusa.org/>

SCOPE OF THE CONTEST

The contest will be consistent with the Collision Repair/Refinishing Technician Task list outlined in the guidelines published by the National Institute for Automotive Service Excellence (ASE) and the National Technicians Education Foundation (NATEF), www.natef.org. Contestants will demonstrate their ability to perform jobs of skills selected from the standards mentioned above as determined by the SkillsUSA Championships technical committee. Committee membership includes: Akzo Nobel Coatings Inc., All Star Marketing, DuPont Performance Coatings, ITW Automotive Refinishing, Martin-Senour Paints, Martin Senour Co., National Institute for Automotive Service Excellence, PPG Industries, Safety Kleen Corp., SATA Spray Equipment, Sherwin-Williams, State Farm Insurance Companies, The DuPont Co. and Toyota Motor Sales USA Inc.

Knowledge Performance

The contest includes a written knowledge test given by ASE, which will consist of 50 questions covering the Automotive Refinishing areas that are identified in the NATEF Collision Repair/Refinishing Program Standards and the ASE Official Study Guide: Collision Repair/Refinish. The tests for the high school and college contestants will be comprised of Surface Preparation; Spray Gun Operation and Related Equipment; Paint Mixing, Matching, and Applying; Solving Paint Application Problems; Finish Defects, Causes and Cures and Safety Precautions; and an estimating test.

Skill Performance

The contest includes a series of workstations, a manually written estimate and an interview process designed to assess skills in the following areas: Spot Repair, Featheredge, Prime and Block, Paint ID and Masking. The overall appearance of the finished product, speed and proper safety practices will be judged.

Note: “*” Denotes this material is covered on a separate written test prior to the official contest day.

Standards and Competencies

Spot Repair

ART 1.0 — Prepare a panel surface for a basecoat blend in relationship to the tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE test)

- 1.1 Demonstrate proper safety procedures
- 1.2 Soap and water wash the entire area of panel being repaired; use appropriate cleaner to remove contaminants
- 1.3 Dry or wet sand areas to be refinished.
 - 1.4 Featheredge damaged areas to be refinished
- 1.5 Clean area to be refinished using a final cleaning solution
- 1.6 Remove dust from the area to be refinished, including cracks or moldings of adjacent areas
- 1.7 Remove, with a tack rag, any dust or lint particles from the area to be refinished

ART 2.0 — Prepare a panel surface for clearcoat application (full panel) in relationship to the tasks in the

National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE test)

- 2.1 Demonstrate proper safety procedures
- 2.2 Dry or wet sand the areas to be refinished
- 2.3 Clean the area to be refinished using a final cleaning solution
- 2.4 Remove dust from area to be refinished, including cracks or moldings of adjacent areas
- 2.5 Remove, with a tack rag, any dust or lint particles from the area to be refinished

ART 3.0 — Prepare a panel surface for basecoat spot repair application in relationship to the tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 3.1 Demonstrate proper safety procedures
- 3.2 Remove, with a tack rag, any dust or lint particles from the area to be refinished
- 3.3 Apply clear blending if applicable to prevent metallic halo
- 3.4 Check and adjust spray gun operation
- 3.5 Apply finish using appropriate spray techniques (gun arc, gun angle, gun distance, gun speed and spray pattern overlap) for the finish being applied
- 3.6 Apply basecoat for panel blending or partial refinishing

ART 4.0 — Prepare a panel surface for full panel clearcoat application in relationship to the tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 4.1 Demonstrate proper safety procedures
- 4.2 Remove, with a tack rag, any dust or lint particles from the area to be refinished
- 4.3 Check and adjust spray gun operation
- 4.4 Apply finish using appropriate spray techniques (gun arc, gun angle, gun distance, gun speed and spray pattern overlap) for the finish being applied

ART 7.0 — Spray out completed (includes clearcoat application) application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 7.1 Apply finish using appropriate spray

techniques (gun arc, gun angle, gun distance, gun speed and spray pattern overlap) for the finish being applied

ART 8.0 — Make proper adjustments/hits producing a blendable color match (evidenced of a sprayout card) application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 8.1 Apply tinted product to produce evidence of a blendable color match
- 8.2 Finish being applied

Featheredge, Priming and Blocking (Scratched Substrate)

ART 9.0 — Surface cleaning application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing. (B2 ASE Test)

- 9.1 Soap and water wash entire panel; use appropriate cleaner to remove contaminants
- 9.2 Apply surface cleaner to remove contaminants

ART 10.0 — Repair damaged area in preparation for primers in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 10.1 Sand area using dual action sander
- 10.2 Sand areas to show appropriate removal of material for good featheredge technique
- 10.3 Sand beyond the repair area for adhesion of primer

ART 11.0 — Mix and apply 2-K primers application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 11.2 Apply primer onto surface of repaired area
- 11.3 Check and adjust spray gun operation
- 11.4 Shake, stir, reduce, catalyze/activate and strain product
- 11.5 Apply finish using appropriate spray techniques (gun arc, gun angle, gun distance, gun speed and spray pattern

overlap) for the finish being applied

ART 12.0 — Perform proper block sanding techniques and final sand for basecoat application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 12.1 Dry sand the area to which two-component finishing filler has been applied
- 12.2 Dry or wet sand the area to which primer-surfacer has been applied
- 12.3 Block the sand area to achieve levelness of repaired area

Paint Code ID and Masking

ART 13.0 — Locate and document vehicle manufacturers' paint code application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 13.1 Determine the type and color of paint already on the vehicle by manufacturer's vehicle information label
- 13.2 Identify the code using paint manufacture manuals and or computer to determine paint code location

ART 14.0 — Select the correct variant application if applicable in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 14.1 Identify variant swatches/chips
- 14.2 Match variant to vehicle using color-corrected lighting
- 14.3 Identify variant that will produce the best possible blend

ART 15.0 — Appropriate masking techniques for refinishing fender and blending into adjacent panel (front door) application in relationship to tasks in the National Automotive Technicians Education Foundation (NATEF) Collision Repair and Refinishing Technical Standards for Painting and Refinishing (B2 ASE Test)

- 15.1 Mask and protect adjacent panels that will not be refinished
- 15.2 Mask door jambs and other aperture panels

Note: * Denotes this material is covered on a separate written test prior to the official contest day

ART 16.0 — Complete an estimate to related tasks in ASE Catalog of Collision Repair/Refinishing Tests B6 (Damage Analysis and Estimating)*

- 16.1 Report heading/legibility*
 - 16.1.1 List entrant number on estimating test*
 - 16.1.2 Locate provided “Vehicle Description and Labor Rate Page” and complete owner and vehicle information segment on estimate (e.g., owner name, address, phone numbers, license plate, vehicle year, series, mileage, vehicle identification number)
 - 16.1.3 Write legibly*

ART 17.0 — Identify parts replacement*

- 17.1 Locate and select vehicle to be estimated in the provided collision estimating guide*
- 17.2 Locate and list the correct part prices and replacement labor times and refinish labor times for the pre-determined parts being replaced*
- 17.3 Estimate labor adjustments for vehicle options when appropriate*
- 17.4 Recognize and apply body labor overlap and refinish labor overlap where appropriate. *
- 17.5 Consider and apply “included” and “not included” operations where appropriate*
- 17.6 Consider and apply labor footnotes (# signs) when necessary*

ART 18.0 — Prepare calculations*

- 18.1 Calculate and list the correct paint and materials allowance*
- 18.2 Calculate and list parts, body labor, refinish labor, paint and material column totals*
- 18.3 Calculate and list total labor hours (body labor plus refinish labor)*
- 18.4 Multiply total labor hours by provided labor rate and list labor dollar amount*
- 18.5 Calculate and list TOTAL estimate

amount*

ART 19.0 — Oral Assessment/Interview*

- 19.1 Exhibit personal skills such as attendance, time management and individual responsibility*
- 19.2 Demonstrate promptness when required to meet interviewer at specific time and location*

ART 20.0 — Maintain professional conduct*

- 20.1 Demonstrate courteous behavior while waiting for the interviewer*

ART 21.0 — Maintain professional appearance*

- 21.1 Demonstrate proper for this contest.

ART 22.0 — Complete job application and résumé *

- 22.1 Properly and legibly complete a job application and résumé*

ART 23.0 — Demonstrate interview skills*

ASE Written Test

ART 24.0 — Contestants will be required to take a 50-question multiple-choice test prior to the official contest. A 100-point scale is used for this segment. Participants will be expected to successfully complete this segment. Participants should have some basic knowledge in math and science

- 24.1 Contestants will take a 50-question multiple-choice test in the area of Painting and Refinishing
 - 24.1.1 Contestants will answer 50 questions in the area of Painting and Refinishing in the content areas of: Surface Preparation, Spray Gun Operation and Related Equipment, Paint Mixing, Matching and Applying, Solving Paint Application Problems, Finish Defects, Causes and Cures and Safety Precautions and Miscellaneous

This information is obtained through the National Institute for Automotive Service Excellence Painting and Refinishing (B2) Certification Test.