What is claimed is:

1. A method of manufacturing a multilayered-reflective-film-provided substrate including a substrate and a multilayer reflective film that reflects EUV light on the substrate, the method comprising:

performing a first defect inspection on the multilayered-reflective-film-provided substrate with a first wavelength to acquire first defect information;

performing a second defect inspection on the multilayered-reflective-film-provided substrate with a second wavelength different from the first wavelength to acquire second defect information; and

determining whether there is an unmatching defect and a matching defect by comparing the first defect information with the second defect information to acquire third defect information,

wherein the multilayered-reflective-film-provided substrate includes a reference mark RM,

the first defect information includes first mark coordinates RM1 of the reference mark RM and first defect coordinates, and

the second defect information includes second mark coordinates RM2 of the reference mark RM and second defect coordinates, and

the acquiring the third defect information includes converting, based on relative position coordinates between the first mark coordinates RM1 and the second mark coordinates RM2, the first defect coordinates using the first mark coordinates RM1 as a reference into coordinates using the second mark coordinates RM2 as a reference; and

the determining whether there is an unmatching defect and a matching defect includes comparing a defect distance calculated in consideration of the distance between the converted first defect coordinates and the second defect coordinates with a defect length calculated based on the dimensions of the first defect and the second defect, and determining the defect as a matching defect when the defect distance is shorter than the defect length.

2. The method of manufacturing the multilayered-reflective-film-provided substrate according to claim 1, wherein

the second wavelength is a wavelength substantially equal to an exposure wavelength, and

the first wavelength is a wavelength longer than the second wavelength.

3. The method of manufacturing the multilayered-reflective-film-provided substrate

according to claim 1 or 2, wherein the defect distance includes a value calculated in consideration of the coordinate accuracy of the first defect inspection and the coordinate accuracy of the second defect inspection.

4. The method of manufacturing the multilayered-reflective-film-provided substrate according to any one of claims 1 to 3, wherein

when there is the unmatching defect between the first defect information and the second defect information, the unmatching defect is used as a defect in a first defect map using the first mark coordinates RM1 as a reference, and

when there is the matching defect between the first defect information and the second defect information, the matching defect is used as a defect in a second defect map using the second mark coordinates RM2 as a reference.

5. The method of manufacturing the multilayered-reflective-film-provided substrate according to any one of claims 1 to 4, further comprising:

identifying a first unmatching defect detected only in the first defect inspection and a second unmatching defect detected only in the second defect inspection when there is the unmatching defect between the first defect information and the second defect information; and

performing a third defect inspection different from the first defect inspection and the second defect inspection on the multilayered-reflective-film-provided substrate, wherein

the third defect inspection includes measuring a defect dimension of at least one of the matching defect and the first unmatching defect, and

the defect dimension measured in the third defect inspection is added to the third defect information.

6. The method of manufacturing the multilayered-reflective-film-provided substrate according to any one of claims 1 to 5, wherein the multilayered-reflective-film-provided substrate further includes a protective film on the multilayer reflective film.

7. A method of manufacturing a reflective mask blank comprising:

providing a multilayered-reflective-film-provided substrate manufactured by the method for manufacturing the multilayered-reflective-film-provided substrate according to claim 1; and

forming an absorber film formed on the multilayered-reflective-film-provided substrate.

8. The method of manufacturing the reflective mask blank according to claim 7,

wherein the absorber film includes a second reference mark FM formed on the absorber film and a transfer reference mark RM' obtained by transferring the reference mark RM to the absorber film.

9. The method of manufacturing the reflective mask blank according to claim 7 or 8 comprising:

identifying a first unmatching defect detected only in the first defect inspection and a second unmatching defect detected only in the second defect inspection when there is the unmatching defect between the first defect information and the second defect information about the reflective mask blank; and

performing a third defect inspection on the reflective mask blank with a third wavelength different from the first wavelength and the second wavelength, wherein

the third defect inspection includes measuring a defect dimension of at least one of the matching defect transferred to the absorber film and the first unmatching defect, and

the defect dimension measured in the third defect inspection is added to the third defect information.

10. A method of manufacturing a reflective mask comprising: patterning the absorber film of the reflective mask blank manufactured by the method according to any one of claims 7 to 9 to form an absorber pattern.