Compulsory Specification for/
Verpligte Spesifikasie vir

Articles marked E.P.N.S./
Artikels gemerk E.P.N.S.

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en 292 van 10 Februarie 1950, te wysig deur die byvoeging van onderstaande gelde tot die tarief in die Bylae van genoemde regulasies vervat:—

BYLAE.

S.A.B.S.-spesifikasie No.	Kort titel van spesifikasie.	Eenheid.	Jaarlikse gelde per eenheid bereken tot die naaste kwarteenheid.
96-1949	Artikels van plaatnikkelsilwer vir huishoudelike en hotelgebruik	10,000	Vir die eerste 10 eenhede, £40 per eenheid. Vir die volgende 10 eenhede, £30 per eenheid. Vir die een-en-twinstige en daaropvolgende eenhede, £20 per eenheid.

✱ No. 531.] [10 Maart 1950.

MERK EN VERKOOP VAN E.P.N.S.-WARE.

Ek, ERIC HENDRIK LOUW, Minister van Ekonomiese Sake, verbied hierby kragtens die bevoegdheid my verleen by artikel *vyftien* (1) van die Handelsware-merke-wet, 1941 (Wet No. 17 van 1941), met ingang van 'n datum ses maande na die datum van publikasie van hierdie kennisgewing, die invoer of verkoop in die Unie van goedere gemerk E.P.N.S., of dit hoof- dan wel kleinletters is, en of hulle met of sonder leestekens daartussen geskryf word, tensy sulke goedere in ooreenstemming met die vereistes van die minimum standaard in die Aanhangsel hieronder uiteengesit, gemaak of geproduseer is.

ERIC H. LOUW,
Minister van Ekonomiese Sake.

AANHANGSEL.

SPESIFIKASIE VIR VOORWERPE GEMERK „E.P.N.S." OF „epns".

AFDELING I.—OMVANG.

Hierdie spesifikasie stel die samestelling van die grondmetaal waarvan voorwerpe gemerk „E.P.N.S." of „epns" gemaak is en van die beskermende metaallaag vas.

AFDELING 2.—WOORDBEPALING.

Die afkorting „E.P.N.S." of „epns" beteken „electro-plated nickel silver" (galvanies oorgetrekte nieusilwer) en mag slegs aangebring word op voorwerpe wat van 'n legering gemaak is wat minstens 9 persent nikkel bevat wat bepaal moet word ooreenkomstig die werkwyse later hierin voorgeskryf en volgens 'n elektrolitiese of chemiese proses met 'n neerslag silwer bedek is.

AFDELING 3.—AFWERKING EN SAMESTELLING.

(1) Die grondmetaal van rompe, tuite, handvatsels, skarniere en spelde moet bestaan uit 'n nieusilwer-legering ook bekend as Berlynse silwer, of nikkelgeelkoper. Hierdie legering moet minstens 9 persent nikkel bevat.

(2) Die hele beskermlaag moet van silwer wees en hetsy chemies hetsy elektro-chemies opgelê word.

AFDELING 4.—MERKE.

Die letters „E.P.N.S.", of dit hoof- dan wel kleinletters is, en of hulle met of sonder leestekens daartussen geskryf word, mag slegs aangebring word op 'n voorwerp wat aan die vereistes van hierdie spesifikasie voldoen.

AFDELING 5.—METODE VAN MONSTERNEMING.

(1) *Monsterneming uit besending of aflewering.*—In die [illegible] moet een eksemplaar per gros, of gedeelte daarvan, [illegible] die voorwerpe geneem word om die monster vir [illegible]alise te verteenwoordig.

1949, 39 of 6th January, 1950, and 292 of 10th February, 1950, by the addition of the following fees to the tariff set forth in the Schedule to the said regulations:—

SCHEDULE.

S.A.B.S. Specification No.	Short Title of Specification.	Unit.	Annual Fee per Unit Calculated to the Nearest Quarter Unit.
96-1949	Electro-plated nickel silver articles for domestic and hotel use	10,000	For the first ten units, £40 per unit. For the next ten units, £30 per unit. For the twenty-first and succeeding units £20 per unit.

✱ No. 531.] [10 March 1950.

MARKING AND SALE OF E.P.N.S. WARE.

I, ERIC HENDRIK LOUW, Minister of Economic Affairs, do hereby, under and by virtue of the powers vested in me by section *fifteen* (1) of the Merchandise Marks Act, 1941 (Act No. 17 of 1941), prohibit, from a date six months after the date of publication of this notice, the importation into or sale in the Union of goods marked E.P.N.S., whether in capital or small letters with or without any forms of intervening punctuation marks, unless such goods have been made or produced in conformity with the requirements of the minimum standard set forth in the Annexure below.

ERIC H. LOUW,
Minister of Economic Affairs.

ANNEXURE.

SPECIFICATION FOR ARTICLES MARKED "E.P.N.S." OR "epns".

SECTION 1.—SCOPE.

This specification defines the composition of the base metal from which articles marked E.P.N.S. or epns are made, and the composition of the deposited protective metal.

SECTION 2.—DEFINITION.

The abbreviation "E.P.N.S." or "epns" shall mean electro-plated nickel silver and shall be applied only to articles made of an alloy containing not less than 9 per cent. nickel to be determined in accordance with the procedure hereinafter prescribed and covered with a deposit of silver by an electrolytic or a chemical process.

SECTION 3.—WORKMANSHIP AND COMPOSITION.

(1) The base metal of bodies, spouts, handles, hinges and pins shall consist of an alloy of nickel silver also known as German silver or nickel brass. This alloy shall contain not less than 9 per cent. nickel.

(2) The overall protective coat shall be of silver, and shall be applied either by chemical or electro-chemical means.

SECTION 4.—MARKING.

The letters E.P.N.S., whether in capital or small letters, with or without any forms of intervening punctuation marks, shall be applied only to an article complying with the requirements of this specification.

SECTION 5.—METHOD OF SAMPLING

(1) *Sampling of Consignment or Delivery.*—As a general rule one specimen per gross, or portion thereof, of the articles shall be taken to represent the sample for analysis.

(2) *Monsterneming vir chemiese analise.*—(*a*) Al die eksemplare wat volgens 5 (1) geneem is, moet getoets word om die samestelling van die hele beskermlaag te bepaal.

(*b*) Die monster vir die bepaling van nikkel moet geneem word deur die eksemplare wat geneem is volgens 5 (1) op so'n manier te boor, nadat die hele beskermlaag verwyder is, dat die boorsels verteenwoordigend is van die samestelling van die grondlegering insluitende gedeeltes van elke afmeting.

AFDELING 6.—CHEMIESE ONTLEDINGSMETODES.

(1) *Algemeen.*—Die silwer moet eerste bepaal word en die res van die monster moet geneem word om die nikkel te bepaal.

(2) *Silwerbepaling.*—Verwyder alle vettigheid van die voorwerp deur dit in 'n geskikte organiese oplosmiddel of 'n alkaliese oplossing te was, spoel dit dan met water af en droog by 105° C. Behandel die voorwerp met salpetersuur (s.g. 1·2) wat vry van chloriede is, totdat al die silwer opgelos is. Was die voorwerp daarna goed af en verdamp die gevormde oplossing oor 'n stoombad tot daar geen vloeistof meer oor is nie. Los die droë vaste stowwe op met 'n paar druppeltjies chloriedvrye salpetersuur en neem op in water. Filtreer hierdie oplossing indien nodig en vul ten slotte op tot 'n bepaalde volume. Presipiteer 'n ewematige deel wat ongeveer 0·5 g. silwer bevat met soutsuur en filtreer die silwerchloried af in 'n Goochkroesie en was deeglik met verdunde salpetersuur (1 persent). Droog die kroesie by 105° C. tot die gewig konstant bly. Bereken die gewig van die silwer in Britse Troy pennyweights (dwts.). Gewig van silwer = gewig van silwerchloried × 0·753.

(3) *Nikkelbepaling.*—(*a*) *Reagense.*

(i) *Suurmengsels.*—Meng 30 ml. swawelsuur (s.g. 1·84) met 100 ml. gedistilleerde water en voeg sodra dit afgekoel is, 70 ml. salpetersuur (s.g. 1·42) daarby.

(ii) *Soutsuur* (1:3).—Meng 100 ml. soutsuur (s.g. 1·19) met 300 ml. gedistilleerde water.

(iii) *Ammoniak.*—Soortlike gewig 0·88.

(iv) *Ammoniak* (2½ *persent*).—Meng 25 ml. ammoniak (s.g. 0·88) met 975 ml. gedistilleerde water.

(v) *Dimetielglioksiem* (1 *persent in alkohol*).—Los 1 g. dimetielglioksiem in alkohol op en vul aan tot 100 ml.

(*b*) *Werkwyse.*—Weeg 2·0000 g. van die monster af in 'n hoë 250 ml.-beker, voeg 20 ml. van die suurmengsel daarby en verhit op 'n verwarmingsplaat tot die monster opgelos is, kook dan saggies om die nitreuse dampe te verdryf. Koel af en vul aan tot ongeveer 150 ml. met gedistilleerde water. Sit 'n stel platina-elektrodes daarin, dek af met twee helftes van 'n horlosieglas, en elektroliseer vir ongeveer 3 uur met 'n stroom van 1·5 amp. en 'n E.M.K. van 3 tot 4 volt. Gaan voort met die elektrolise tot geen koper meer op die katode afset nie as die stand van die oplossing verhoog word. Haal die elektrodes uit en was hulle in 'n minimum hoeveelheid gedistilleerde water. Giet die elektroliet en die waswater oor in 'n 150 ml.-beker, voeg ammoniak (s.g. 0·88) by totdat die oplossing net alkalies is teenoor lakmoes, kook en laat besink in 'n warm plek. Filtreer by ongeveer 60° tot 80° C. en voeg 'n dimetielglioksiem-oplossing (1 persent in alkohol) daarby totdat daar geen nikkelglioksiem meer neerslaan nie. Laat omtrent 'n uur in 'n warm plek staan en filtreer deur filtreerpapier van middelmatige tekstuur en was die papier en die presipitaat met gedistilleerde water. Laat warm soutsuur (1:3) rondom die rand van die filtreerpapier loop en vang die aldus opgeloste presipitaat in 'n 450 ml.-beker op. Was die papier nadat die hele presipitaat opgelos is, deeglik met warm gedistilleerde water. Vul die oplossing aan tot omtrent 300 ml. met gedistilleerde water en voeg ammoniak (s.g. 0·88) daarby totdat die oplossing net alkalies is, en dan 'n paar milliliters dimetielglioksiemoplossing (1 persent in alkohol). Laat 'n halfuur staan. Filtreer die nikkeldimetielglioksiempresipitaat in 'n geweegde filtreerkroesie van sinterglas en was die presipitaat met warm gedistilleerde water.

(2) *Sampling for Chemical Analysis.*—(*a*) All the specimens taken as specified in 5 (1) shall be tested for the composition of the overall protective coat.

(*b*) The sample for the determination of nickel shall be obtained by drilling the specimens, taken as specified in 5 (1), after the overall protective coat has been removed, in such a manner as to represent the composition of the base alloy, including portions of each dimension.

SECTION 6.—METHODS OF CHEMICAL ANALYSIS.

(1) *General.*—The silver shall be determined first, and the balance of the sample shall be used for the determination of nickel.

(2) *Determination of Silver.*—Thoroughly clean the article of grease by washing with any suitable organic solvent, or alkaline solution, and finally wash with water and dry at 105° C. Treat the article with nitric acid (sp. gr. 1·2) free from chlorides, until all the silver has been dissolved. Then wash the article well and evaporate the resulting solution to dryness on a steam bath. Dissolve the dried solids with a few drops of chloride-free nitric acid and take up in water. Filter this solution if necessary and finally make up to a definite volume. Precipitate with hydrochloric acid in aliquot portion containning aproximately 0·5 g. silver and filter off the silver cholride on a Gooch crucible washing well with dilute nitric acid (1 per cent.). Dry the crucible to constant weight at 105° C. Calculate the weight of silver to British Troy pennyweights (dwts.).

Weight of silver = weight of silver chloride × 0·753.

(3) *Determination of Nickel.*—(*a*) *Reagents.*

(i) *Mixed Acids.*—Mix 30 ml. of sulphuric acid (sp. gr. 1·84) with 100 ml. of distilled water and when cool add 70 ml. of nitric acid (sp. gr. 1·42).

(ii) *Hydrochloride Acid* (1 : 3).—Mix 100 ml. of hydrochloride acid (sp. gr. 1·19) with 300 ml. of distilled water.

(iii) *Ammonia.*—Specific gravity 0·88.

(iv) *Ammonia* (2½ *per cent.*).—Mix 25 ml. of ammonia (sp. gr. 0·88) with 975 ml. of distilled water.

(v) *Dimethylglyoxime* (1 *per cent.*) *in Alcohol.*—Dissolve 1 g. of dimethylglyoxime in alcohol and make up to 100 ml.

(*b*) *Procedure.*—Weigh out 2·0000 g. of the sample into a 250 ml. tall form beaker, add 20 ml. of the mixed acids and warm on a hot plate until the sample has dissolved, then boil gently to expel nitrous fumes. Cool and make up to approximately 150 ml. with distilled water. Introduce a pair of platinum electrodes, cover with a pair of split watch glasses, and electrolyze for approximately 3 hours using a current of 1·5 amp. and an E.M.F. of 3 to 4 volts. Continue the electrolysis until no more copper is deposited on the cathode when the level of the solution is raised. Remove the electrodes and wash them in the minimum amount of distilled water. Transfer the electrolyte and the washings to a 150 ml. beaker, add ammonia (sp. gr. 0·88) until the solution is just alkaline to litmus, boil, and allow to settle in a warm place. Filter at approximately 60° to 80° C. and add dimethylglyoxime solution (1 per cent. in alcohol), until no further precipitate of nickel glyoxime is formed. Allow to stand in a warm place for about 1 hour and filter through a medium texture filter paper washing the paper and precipitate with distilled water. Dissolve the precipitate into a 450 ml. beaker by running hot hydrochloric acid (1:3) round the edge of the filter paper. When all the precipitate has dissolved wash the paper thoroughly with hot distilled water. Make up the solution to about 300 ml. with distilled water and add ammonia (sp. gr. 0·88) until the solution is just alkaline, and add a few mililitres of dimethylglyoxime solution (1 per cent. in alkohol). Allow to stand for ½ hour. Filter the nickel dimethylglyoxime precipitate onto a weighed sintered glass filter crucible and wash the pricipitate with hot distelled water. Dry

Droog die kroesie met die presipitaat tot die gewig konstant is by 'n temperatuur van 115° C. Koel af in 'n desikkator en weeg as nikkeldimetielglioksiem.

(4) *Berekening.*—Bereken die nikkelpersentasie soos volg:—

$$\text{Persent nikkel in monster} = \frac{B \times 0{\cdot}20325}{A} \times 100,$$

waar
A = gewig van monster; en
B = gewig van nikkeldimetielglioksiem.

the crucible and precipitate to constant weight at a temperature of 115° C. Cool in a disiccator and weigh as nickel demethylglyoxime.

(4) *Calculation.*—Calculate the percentage of nickel as follows:—

$$\text{Percentage nickel in sample} = \frac{B \times 0{\cdot}20325}{A} \times 100,$$

where
A = weight of sample taken, and
B = weight of nickel dimethylglyoxime.