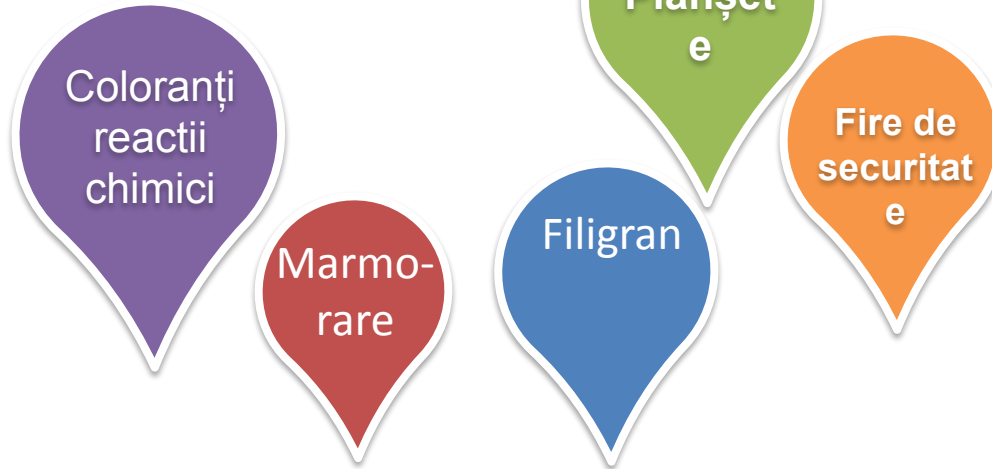


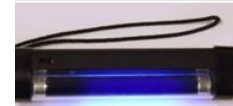
Caracteristici de securitate a hârtiei

Caracteristici de securitate



•Hârtie de securitate

Fluorescență – verificare

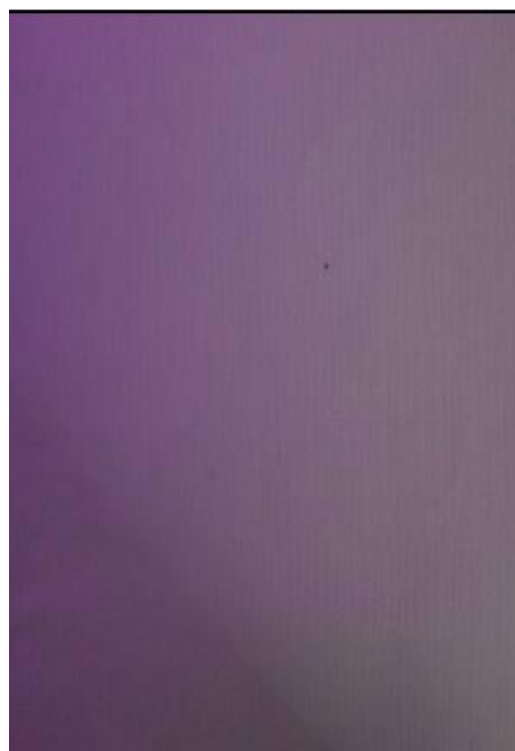


Hârtia de securitate nu conține înălbitori optici

Hârtie cu înălbitor optic

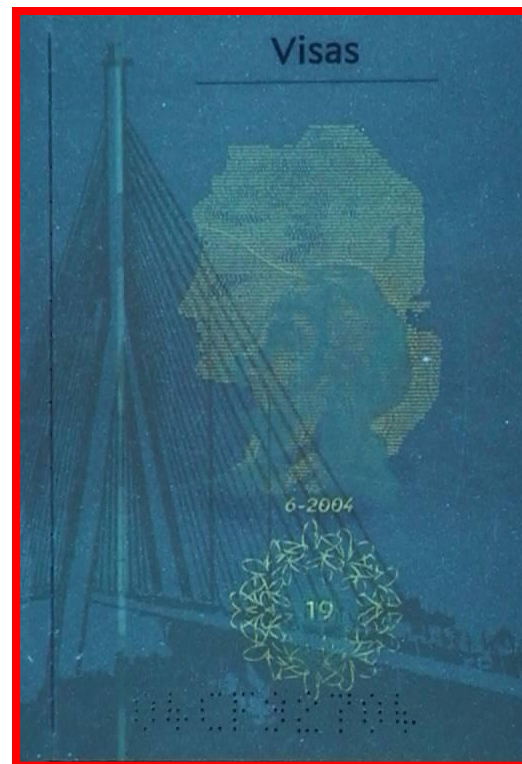
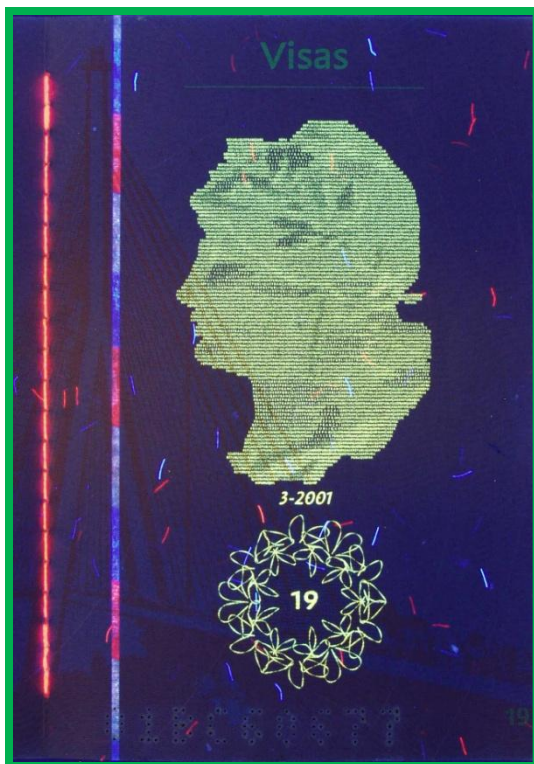


Hârtie fără înălbitor optic



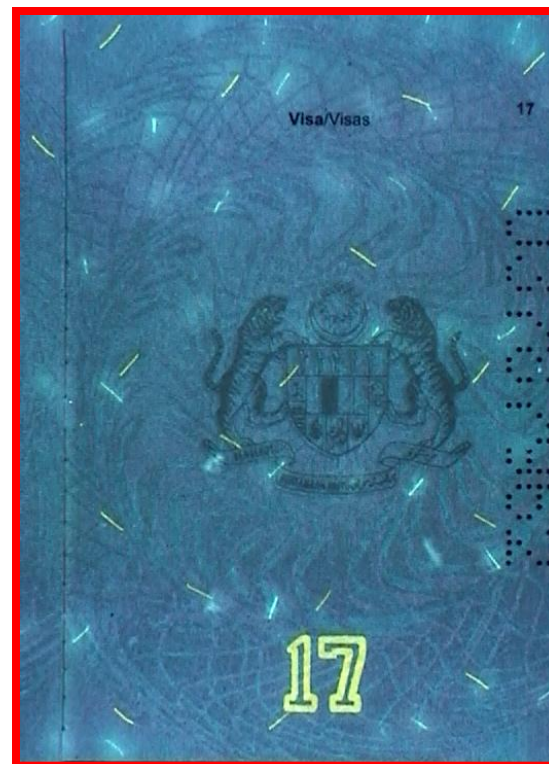
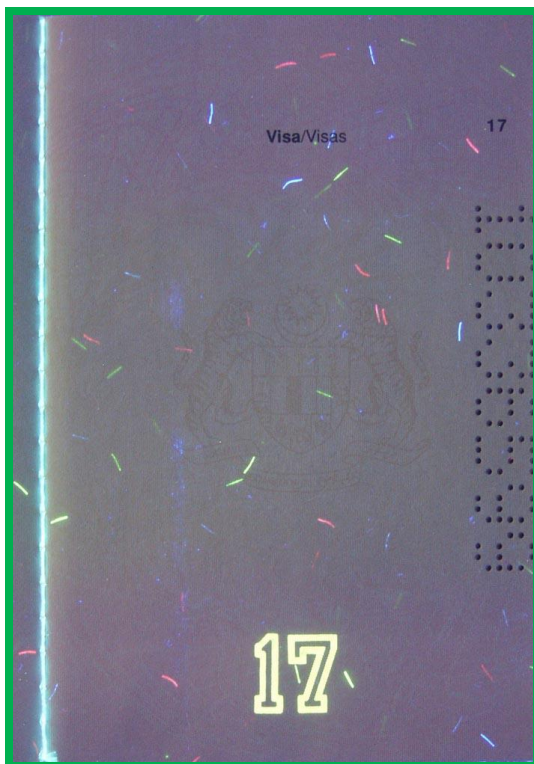
Fluorescență – verificare

Hârtia de securitate nu conține înălbitori optici

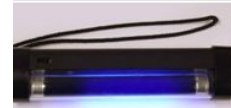


Fluorescență – verificare

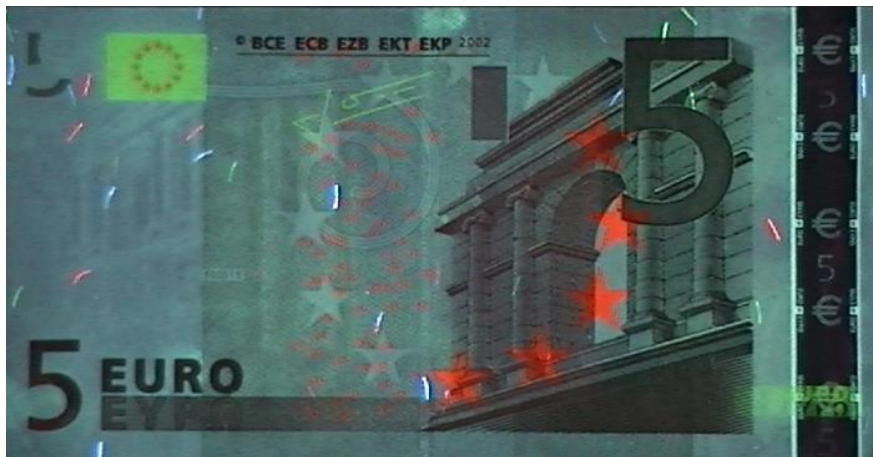
Hârtia de securitate nu conține înălbitori optici



Fluorescență – verificare

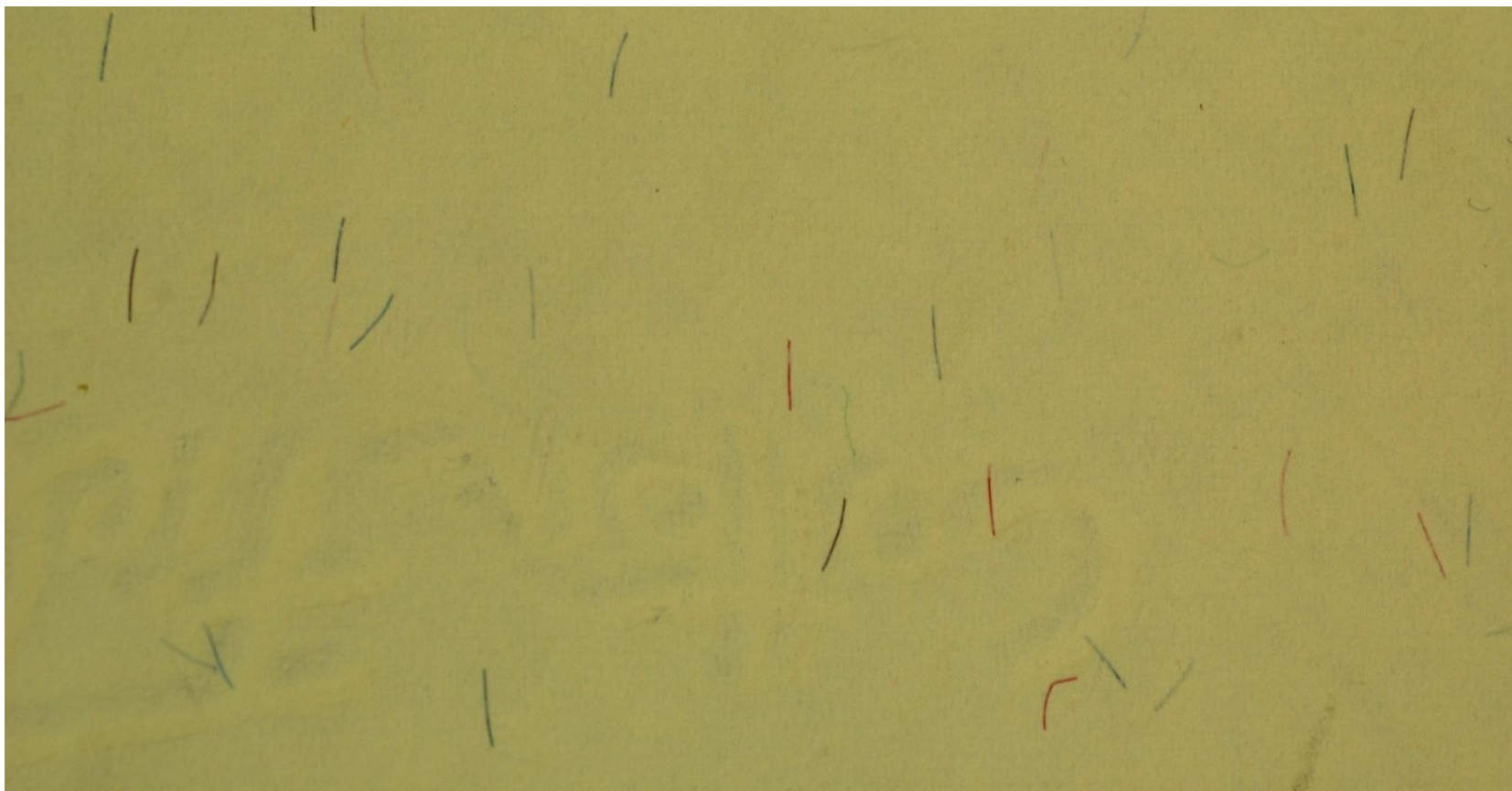


Hârtia de securitate nu conține înălbitori optici



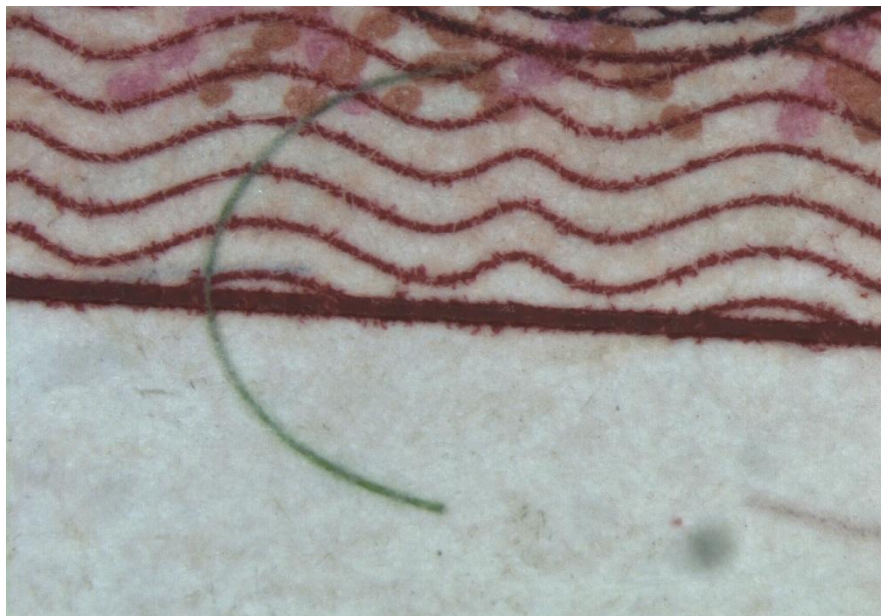
Marmorare

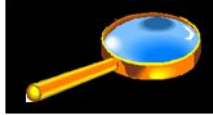
Firele din masă plastică de lungime și culori diferite, care sunt incorporate în hârtie.



Marmorare

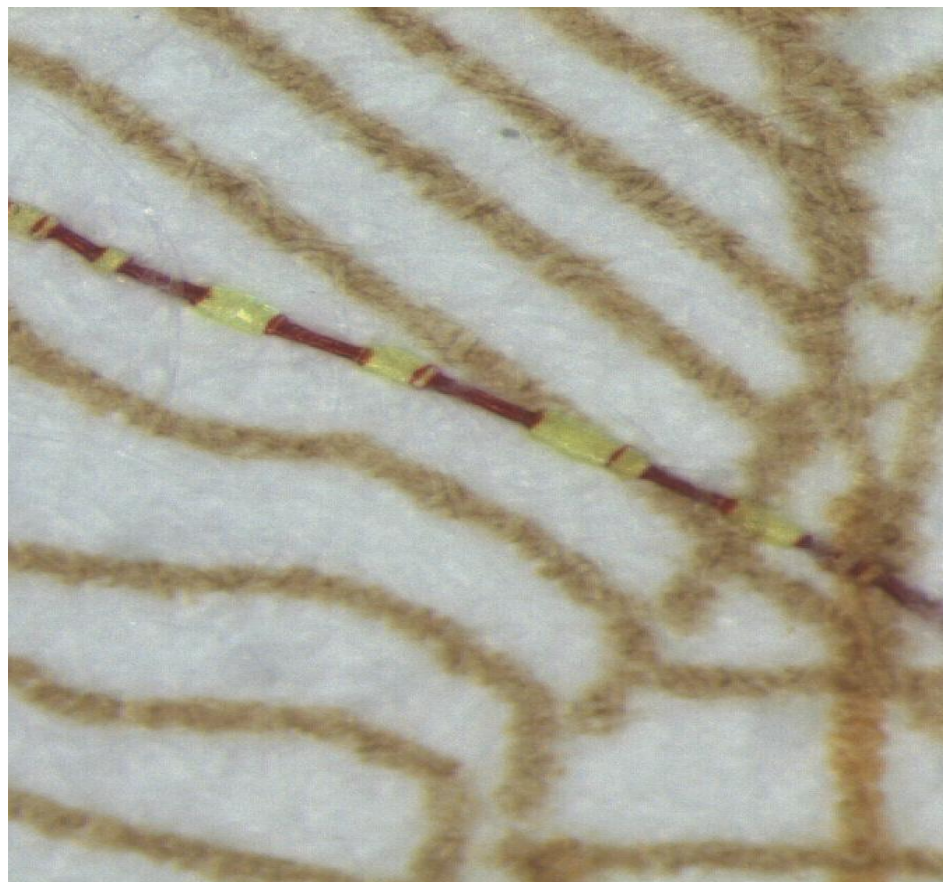
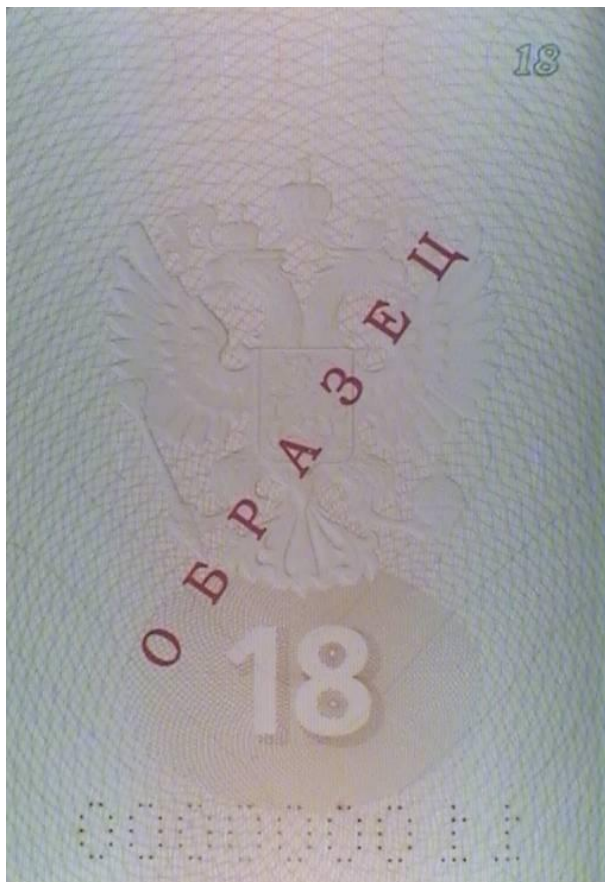
Marmorare vizibilă

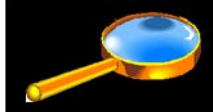




Marmorare

Marmorare vizibilă





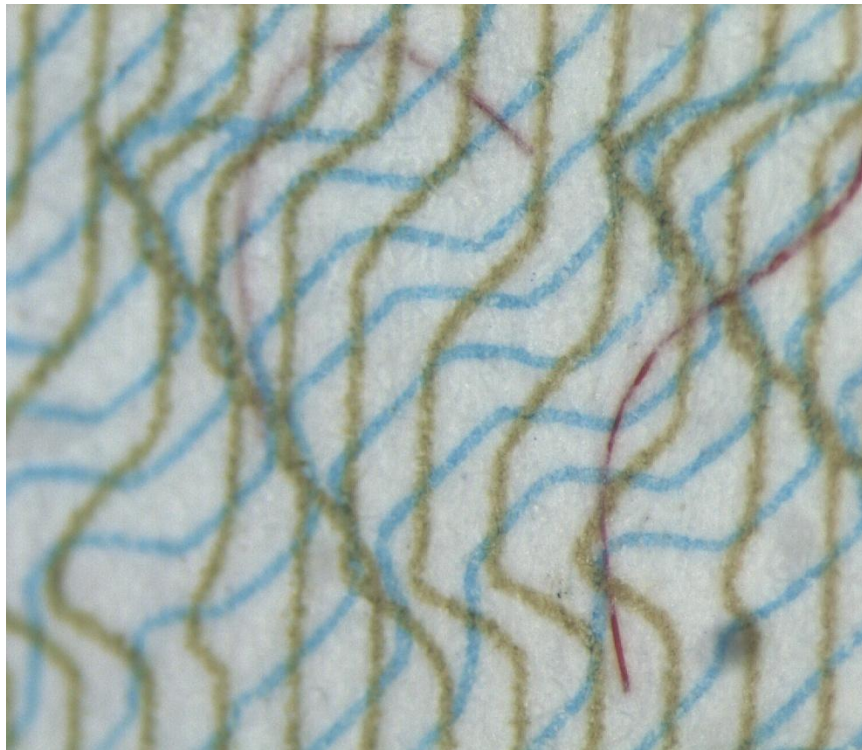
Marmorare

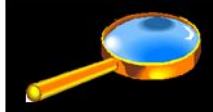
Marmorare vizibilă

Pastă de fibre suprapuse



Pastă de fibre suprapuse

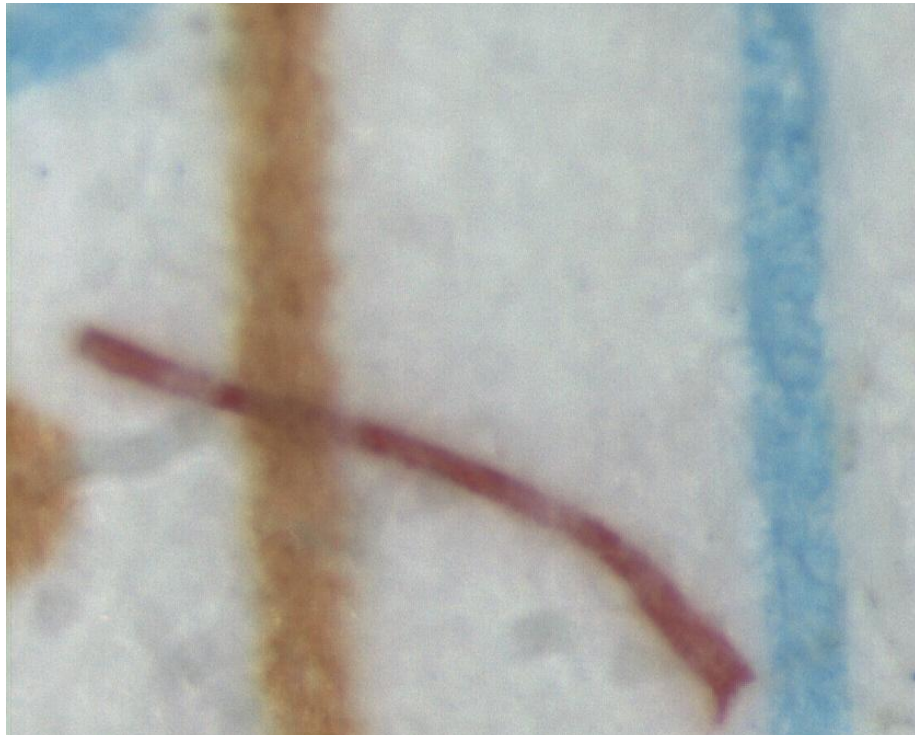




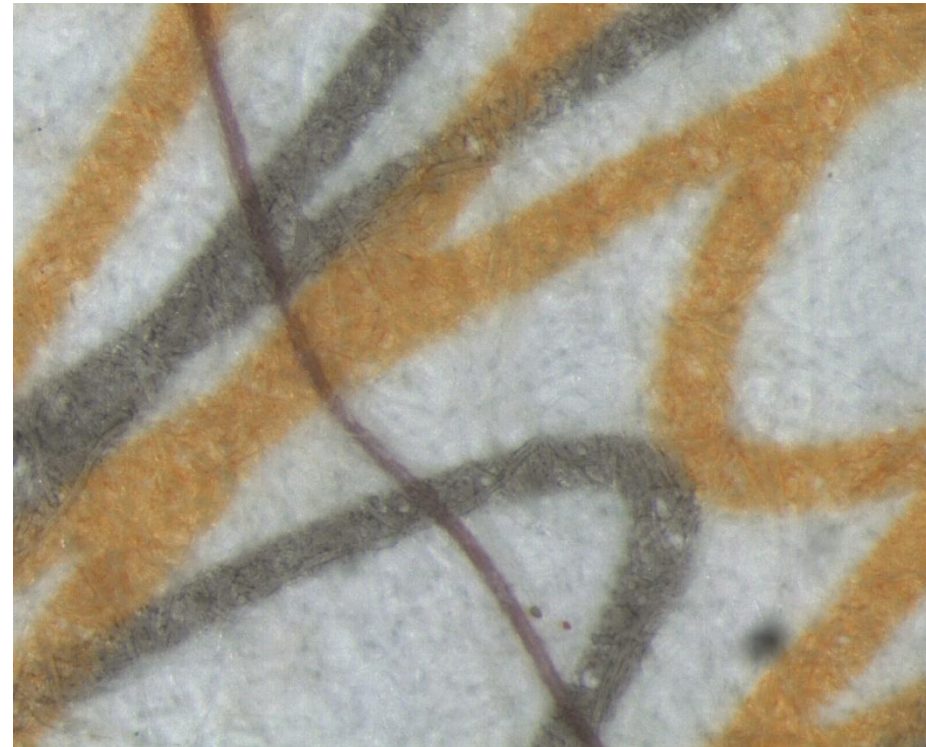
Marmorare

Marmorare vizibilă

Suspensie sub presiune

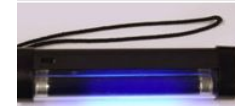
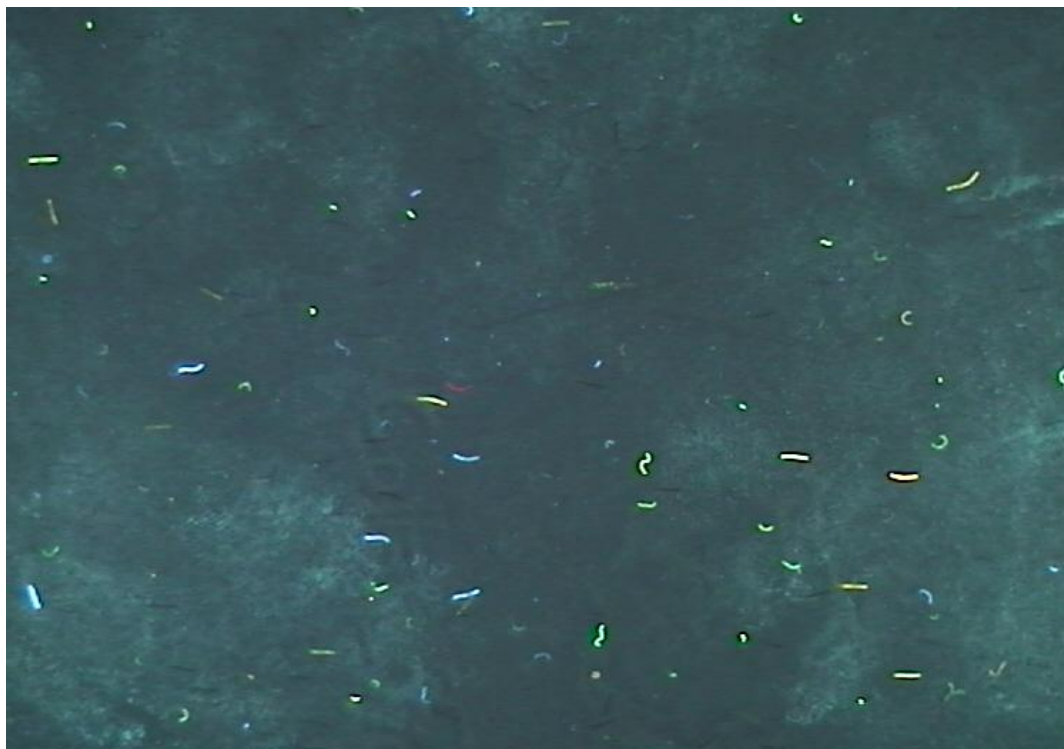


Suspensie sub presiune



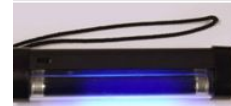
Marmorare

Marmorare fluorescentă



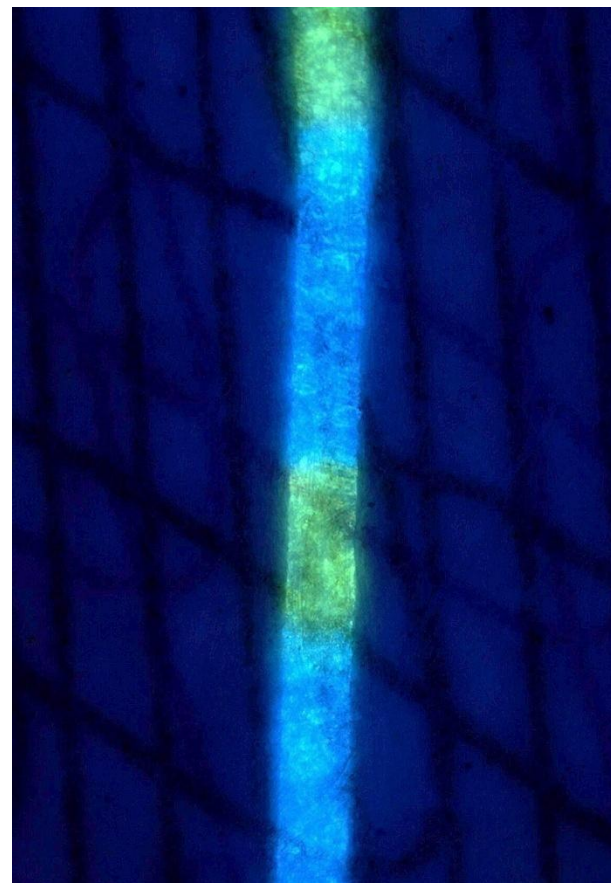
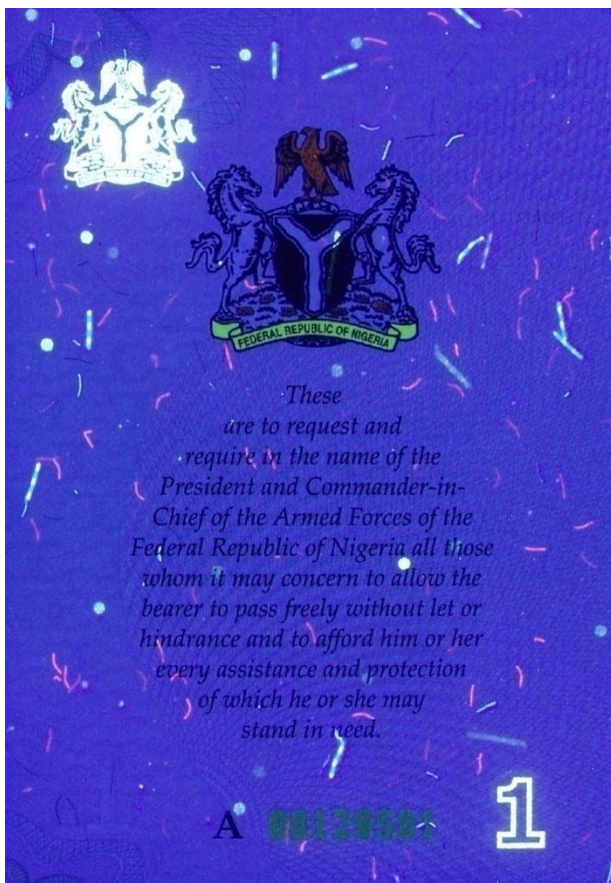
Marmorare

Marmorare fluorescentă



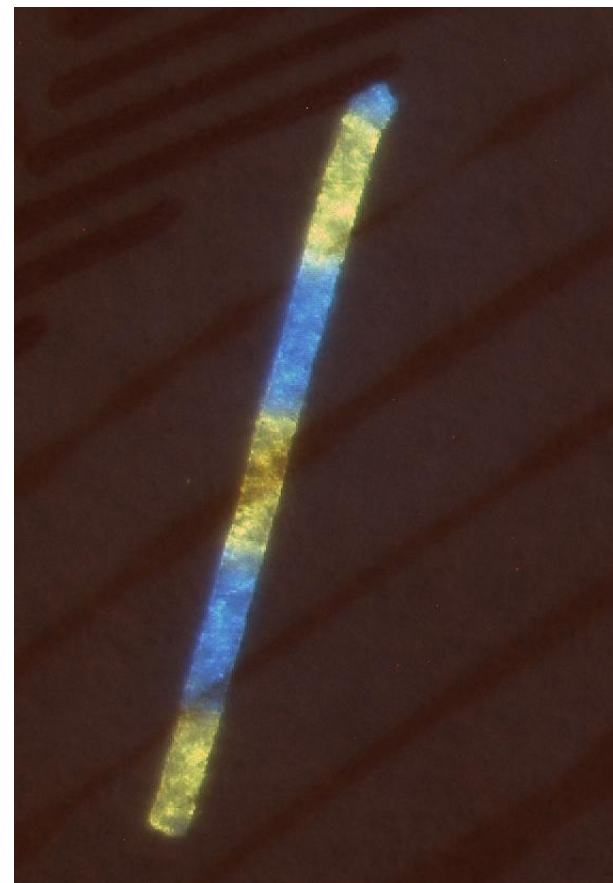
Marmorare

Marmorare fluorescentă
multicoloră



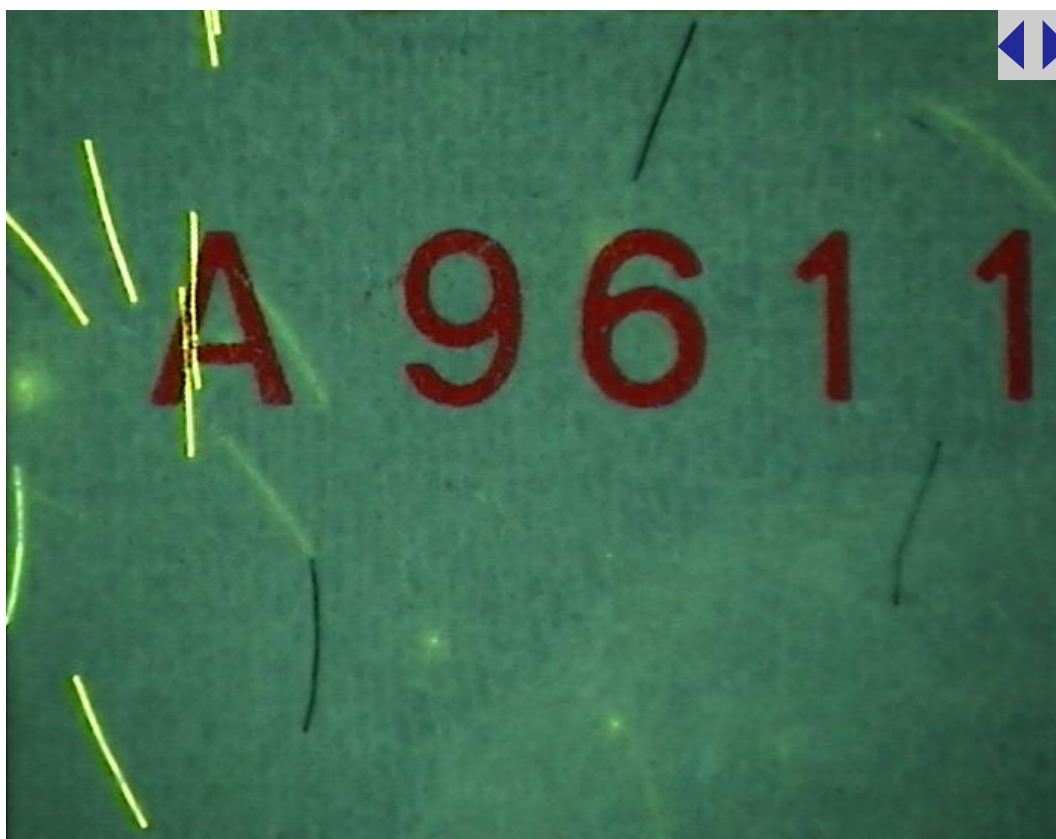
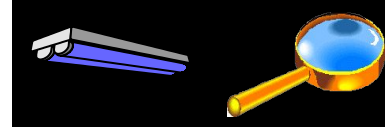
Marmorare

Marmorare fluorescentă
multicoloră

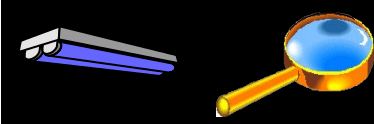


Marmorare

Marmorare
vizibilă/fluorescentă

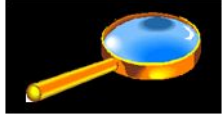


Marmorare



Marmorare
vizibilă/fluorescentă

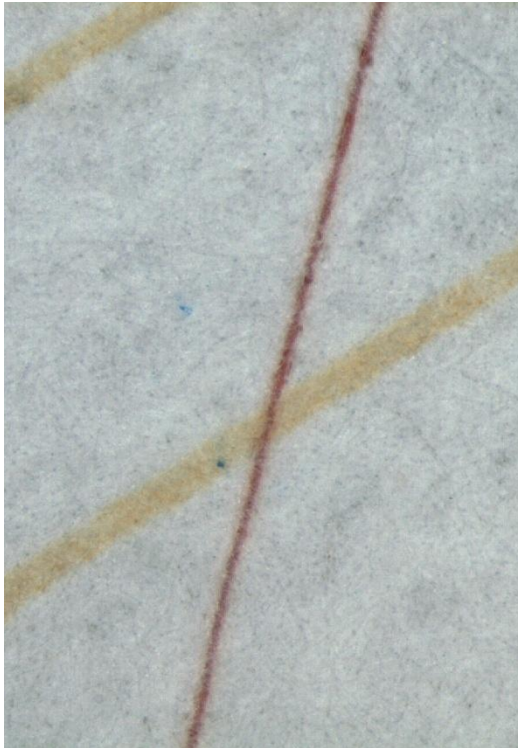




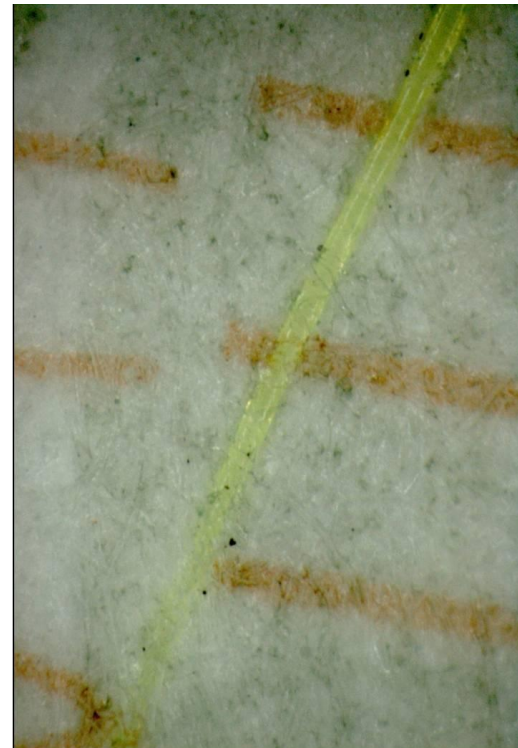
Marmorare

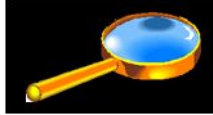
Imitație prin: Înregistrare

Original



Înregistrat





Marmorare

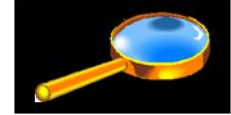
Imitație prin: Lipire

Original



Lipit

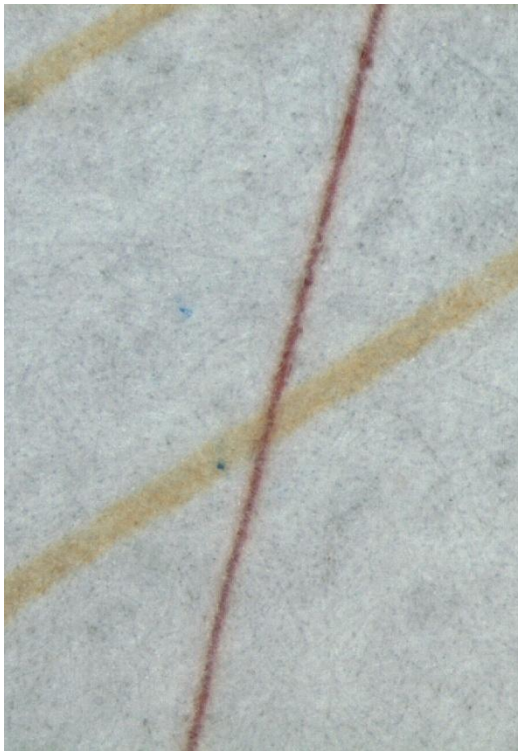




Marmorare

Imitație prin: Imprimare

Original



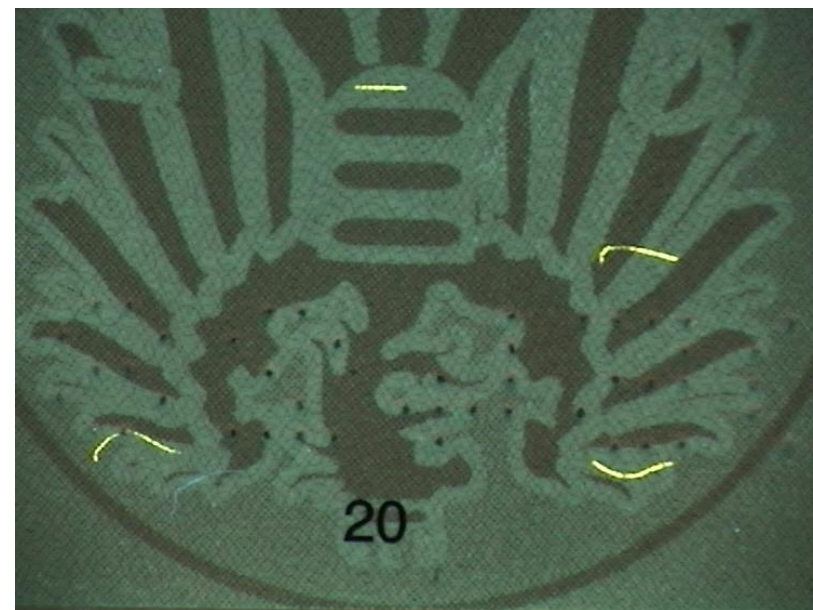
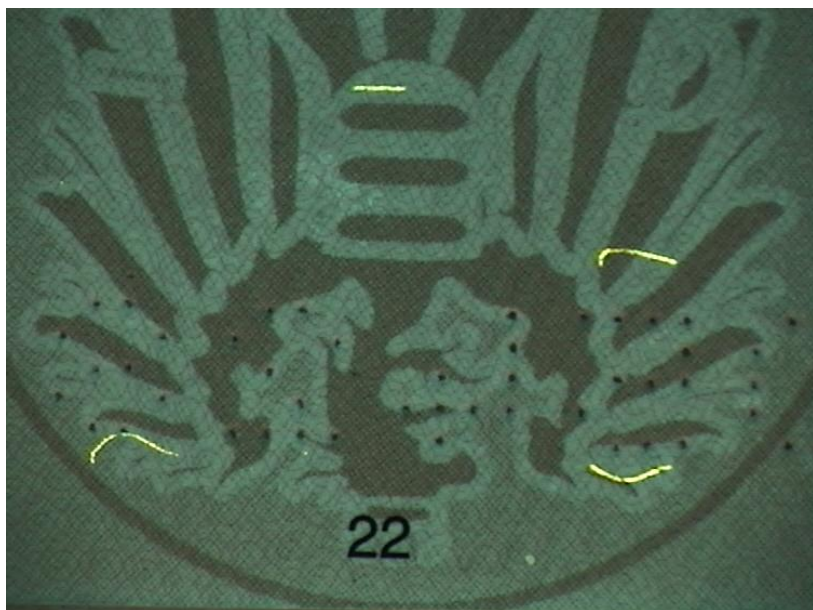
Imprimat



Marmorare

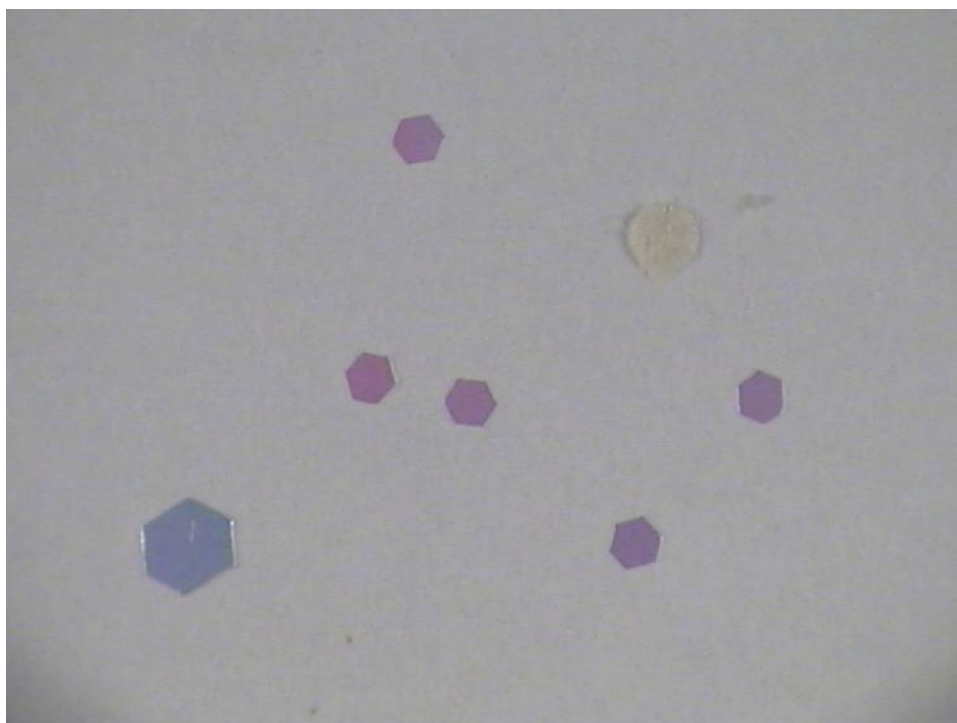


Marmorarea imprimată se află adesea în aceeași poziție



Planșete

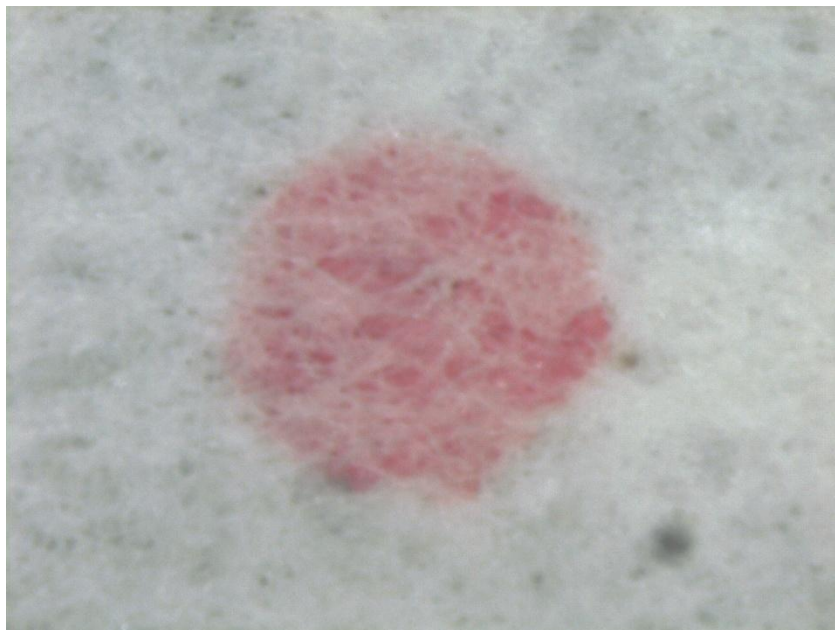
Foliile din mase plastice în forme geometrice și culori diferite, care sunt incorporate în hârtie în timpul producerii hârtiei.



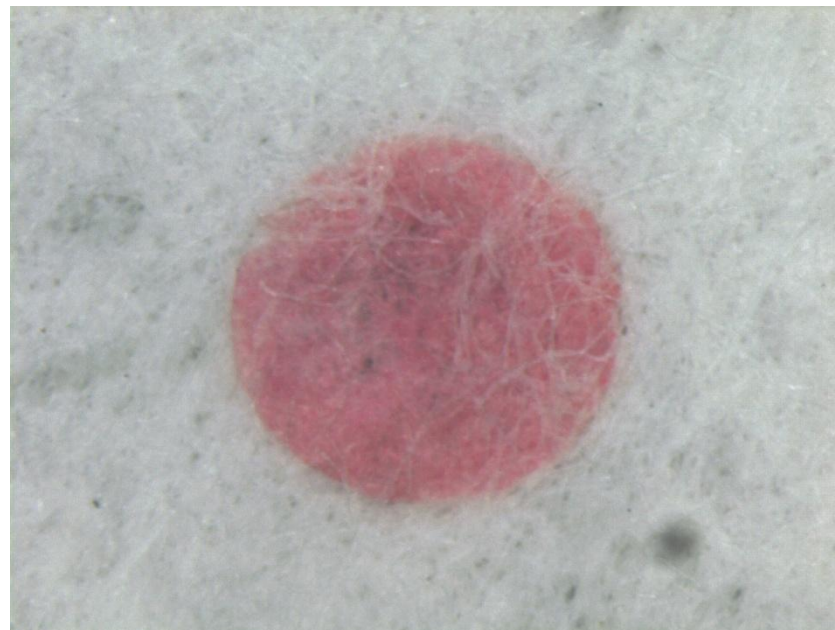
Planșete

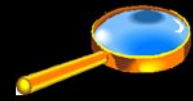
Planșete vizibile

Pastă de fibre suprapuse



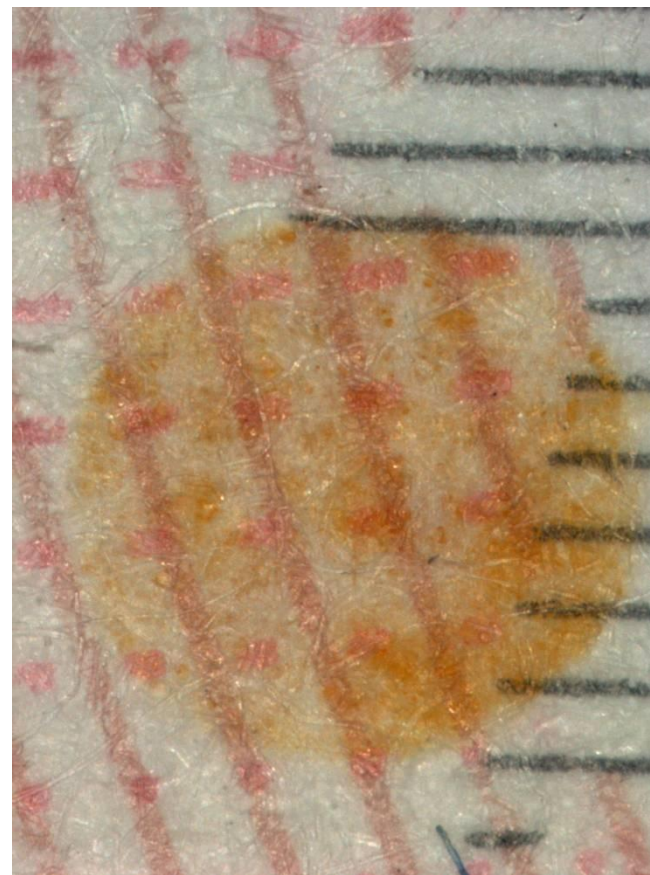
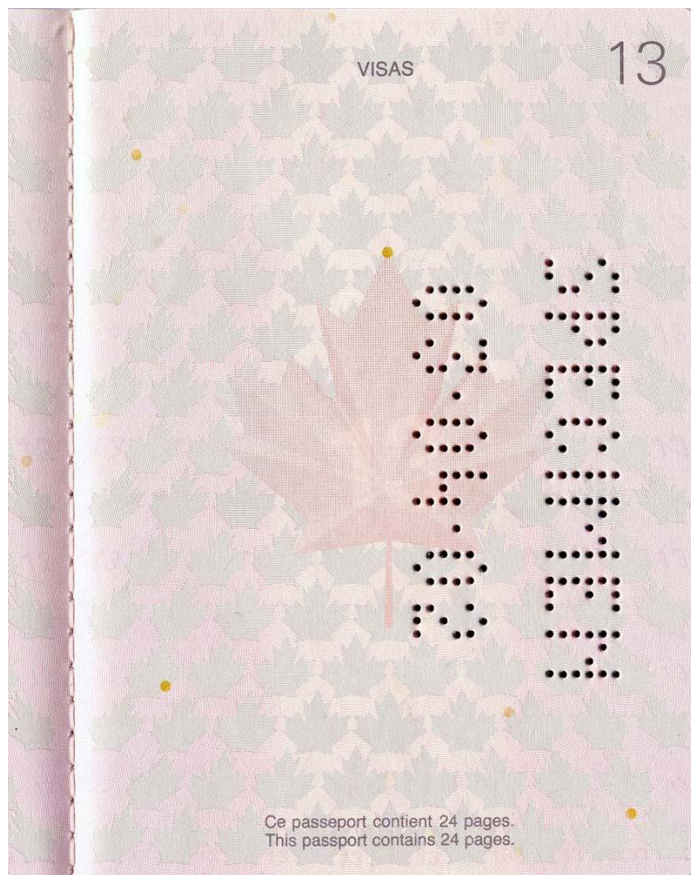
Pastă de fibre suprapuse

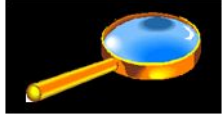




Planşete

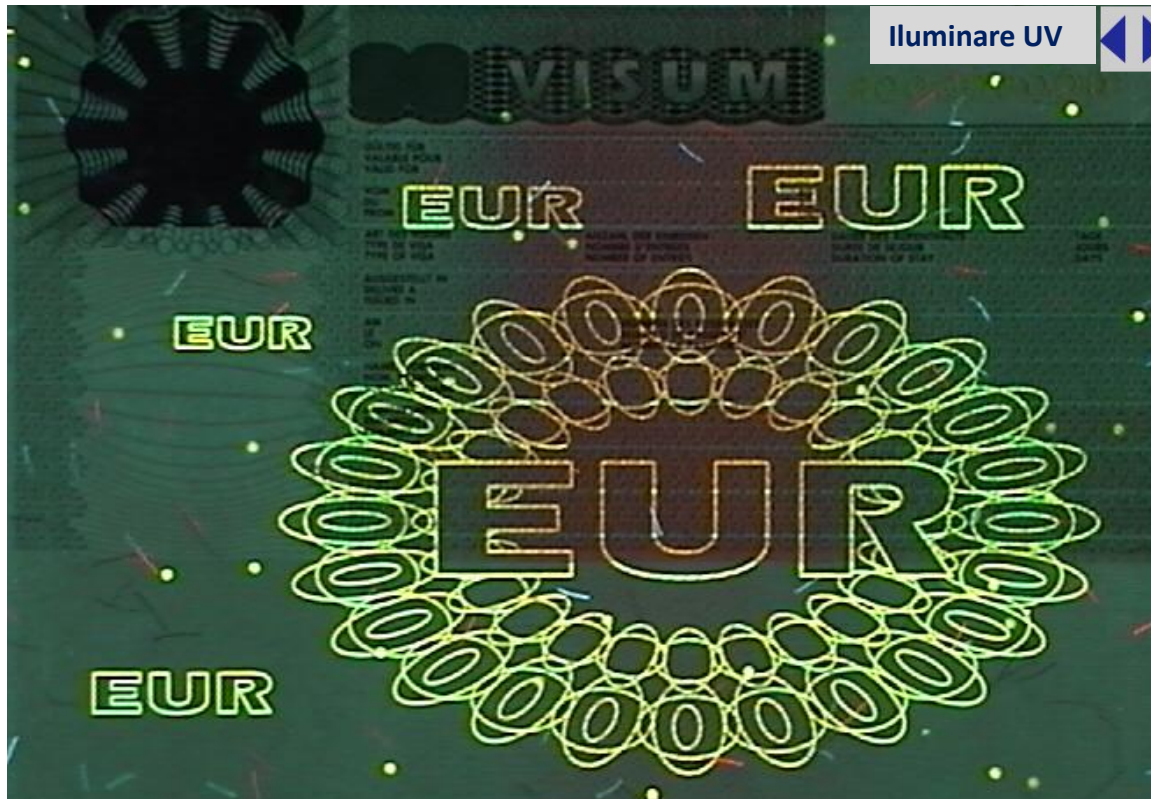
Planşete vizibile





Planşete

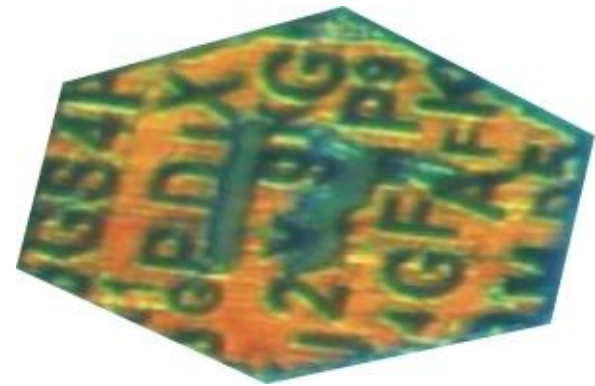
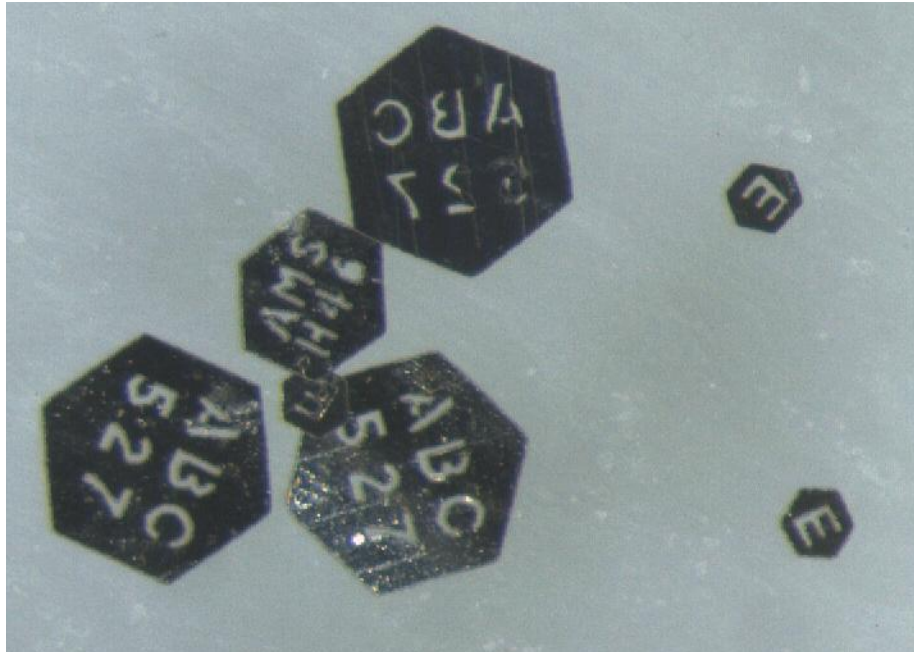
Planşete fluorescente



Planșete

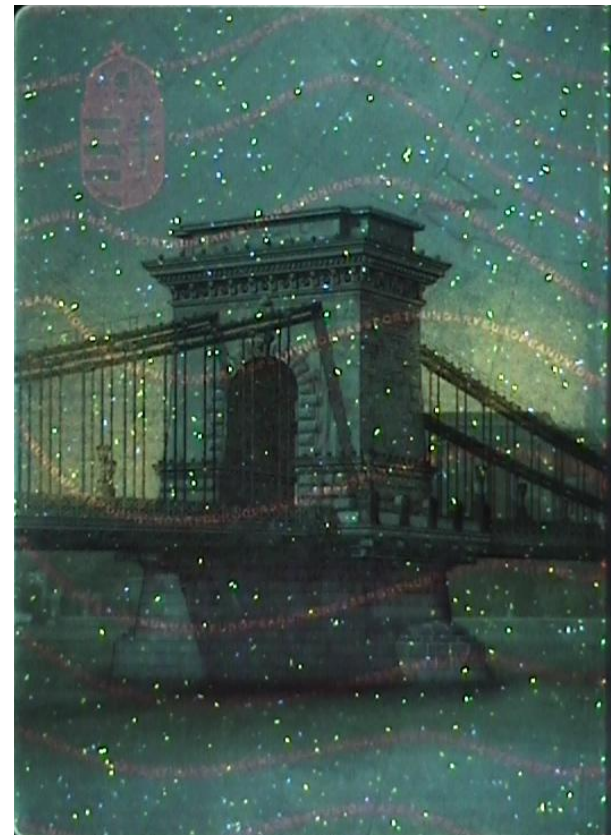
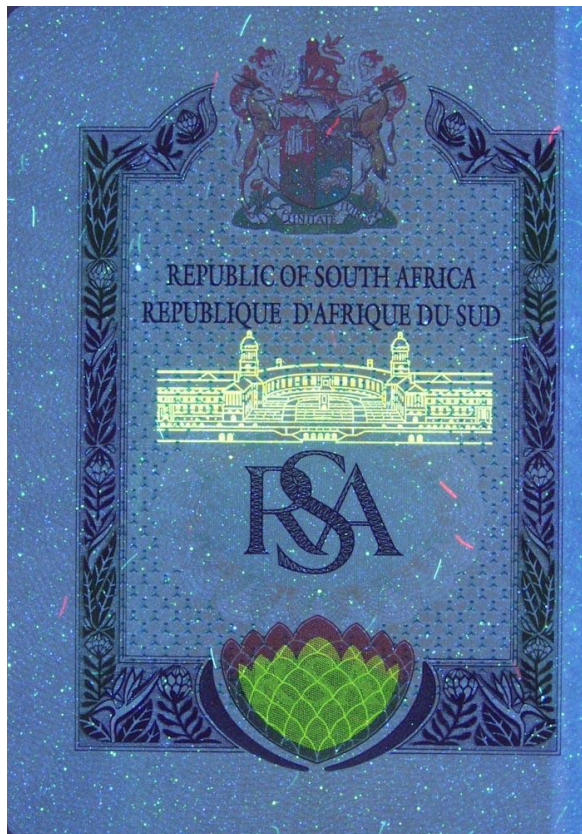


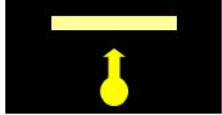
Microparticule OVDot[®], cu microcaractere imprimare în nanotehnologie și efecte holografice.



Planşete

Hi Lites fluorescentă





Filigran

Un motiv vizibil în lumină, care apare prin aplicarea straturilor mai subțiri și mai groase de fire.

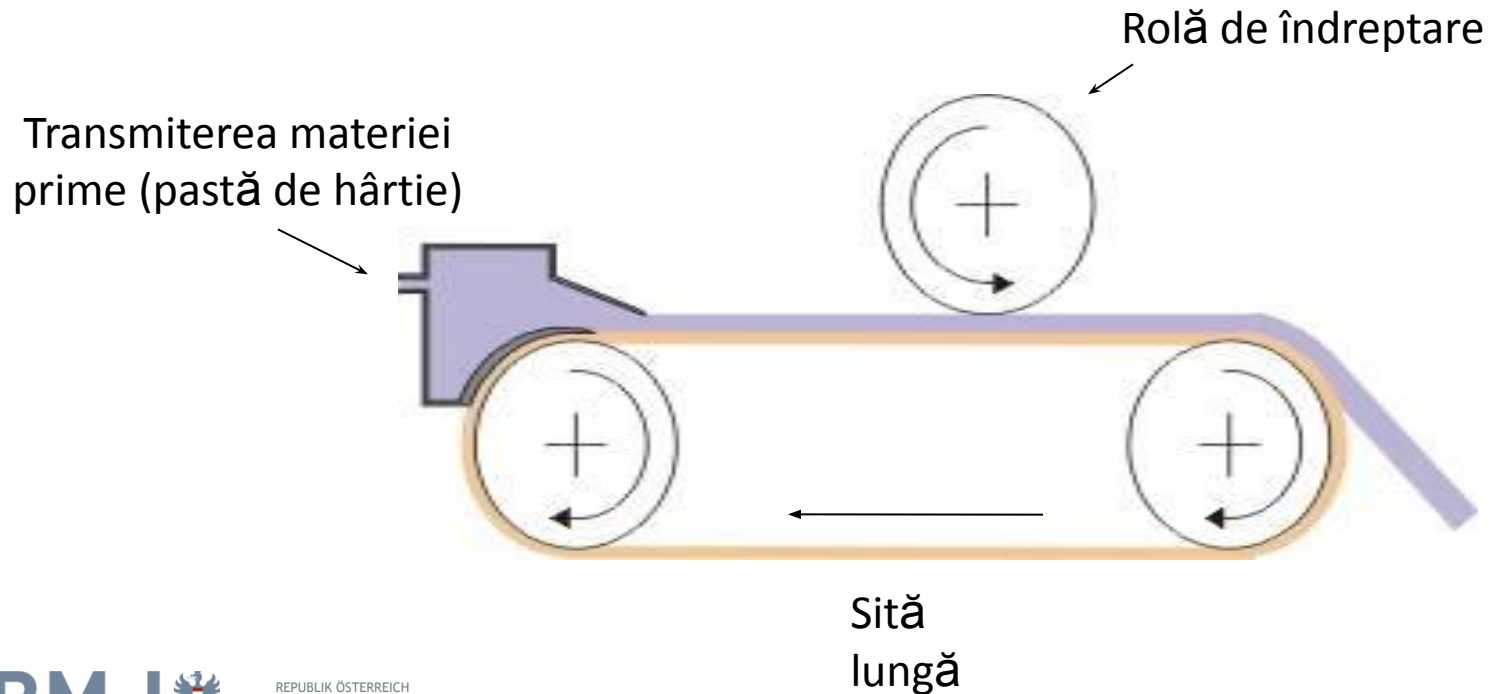


•Filigran

- Filigran real
 - Filigran liniar
 - Deschis
 - Întunecat
 - În două trepte
- Filigran cu umbre
 - Filigran portret sau relief
- Filigran semireal
 - Filigran molette
- Filigran ireal
 - Filigran decolorat

Filigran real

Producerea unui filigran liniar are loc pe mașina cu site lungi

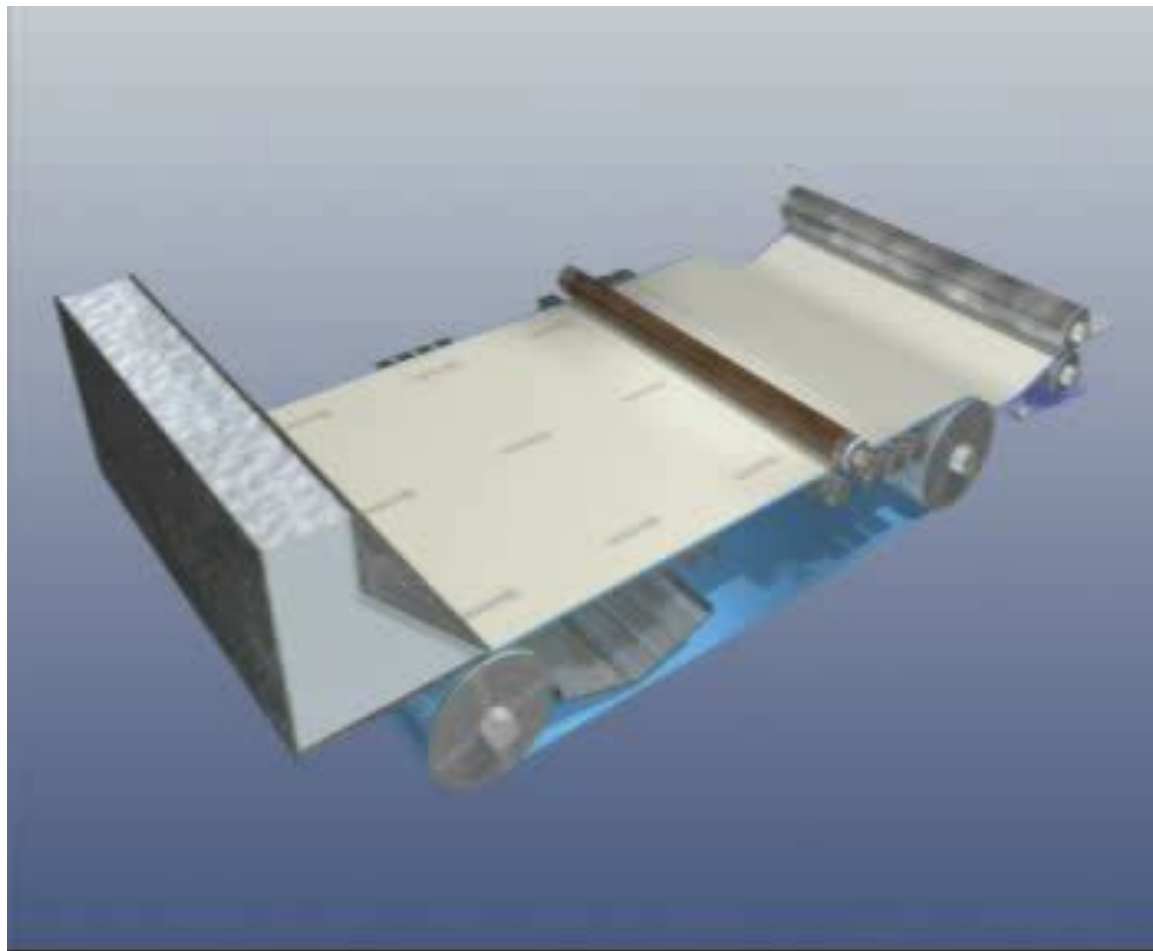


Filigran liniar

Producerea unui filigran liniar are loc pe o mașină cu sită lungă.



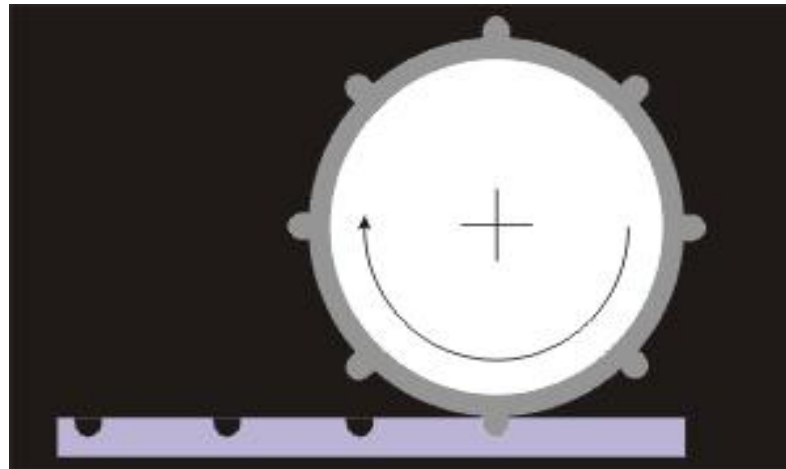
Filigran liniar

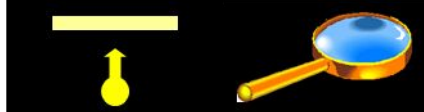


Filigran liniar

Filigran liniar de culoare deschisă

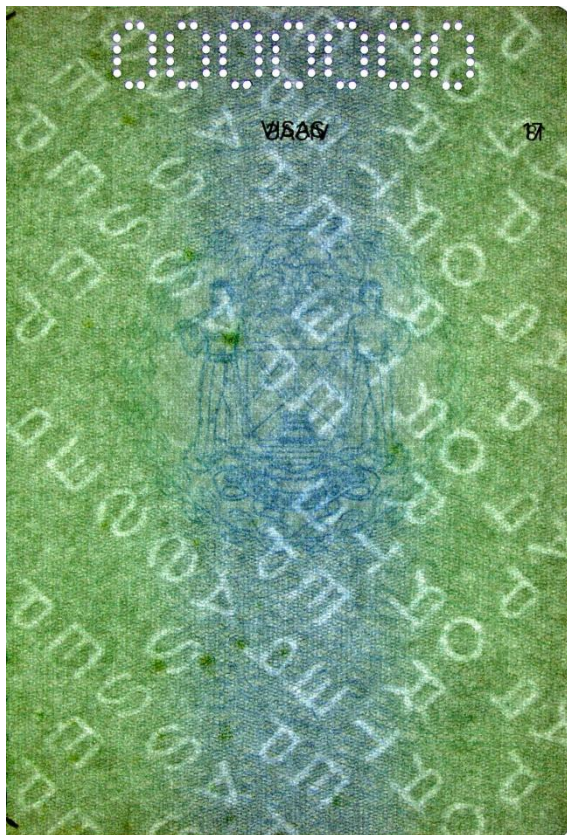
Pentru producerea unui filigran de culoare deschisă este pe rola de întindere sunt lipite fire cu motivul corespunzător.

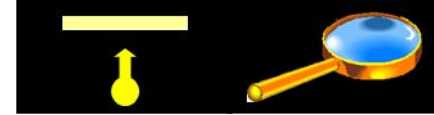




Filigran liniar

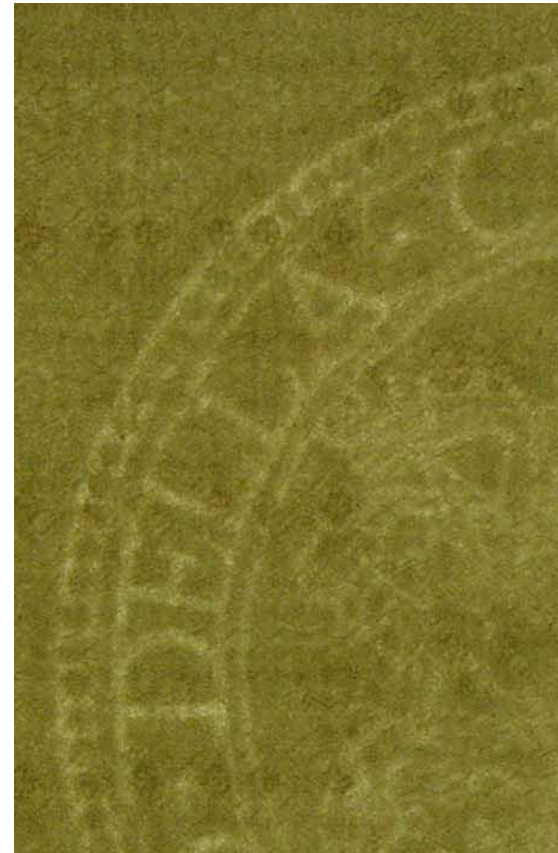
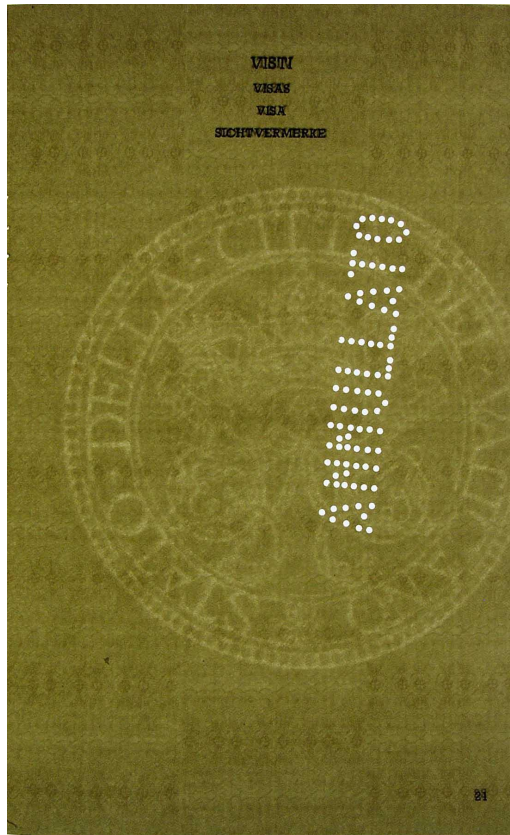
Filigran liniar de culoare deschisă





Filigran liniar

Filigran liniar de culoare deschisă



Filigran liniar

Filigran liniar de culoare deschisă

Filigran liniar HighLight / Filigran electrotip

Prin motivele metalice lipite se reduce puternic duritatea hârtiei. Apare filigran de culoare foarte deschisă.

Adesea aceste filigrane se utilizează pentru indicarea valorii, în combinație cu filigranul umbrit, pe bancnote.



Filigran liniar

Filigran liniar de culoare deschisă

Filigran liniar HighLight / Filigran electrotip

Prin motivele metalice lipite se reduce puternic duritatea hârtiei. Apare filigran de culoare foarte deschisă. Adesea aceste filigrane se utilizează pentru indicarea valorii, în combinație cu filigranul umbrit, pe bancnote.



Filigran liniar

Filigran liniar de culoare deschisă

Filigran liniar HighLight / Filigran electrotip

Prin motivele metalice lipite se reduce puternic duritatea hârtiei. Apare filigran de culoare foarte deschisă.

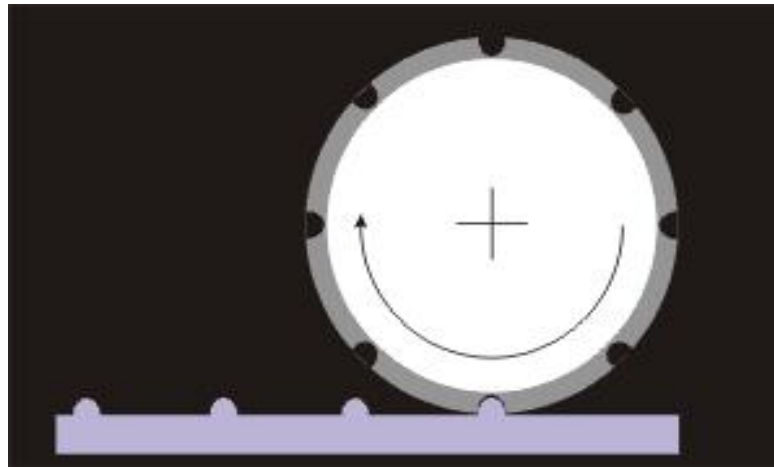
Adesea aceste filigrane se utilizează pentru indicarea valorii, în combinație cu filigranul umbrit, pe bancnote.



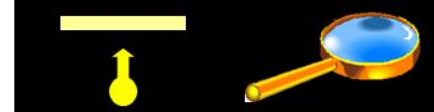
Filigran liniar

Filigran liniar de culoare închisă

Pentru producerea unui filigran liniar de culoare închisă pe rola de întindere se gravează adâncituri în carcasa din sârmă.



Filigran liniar



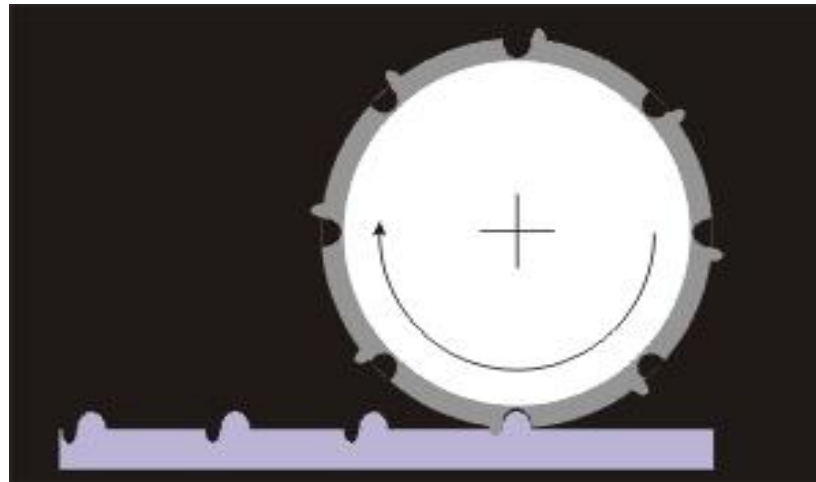
Filigran liniar de culoare închisă

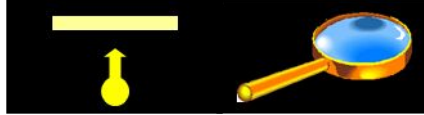


Filigran liniar

Filigran liniar în două trepte

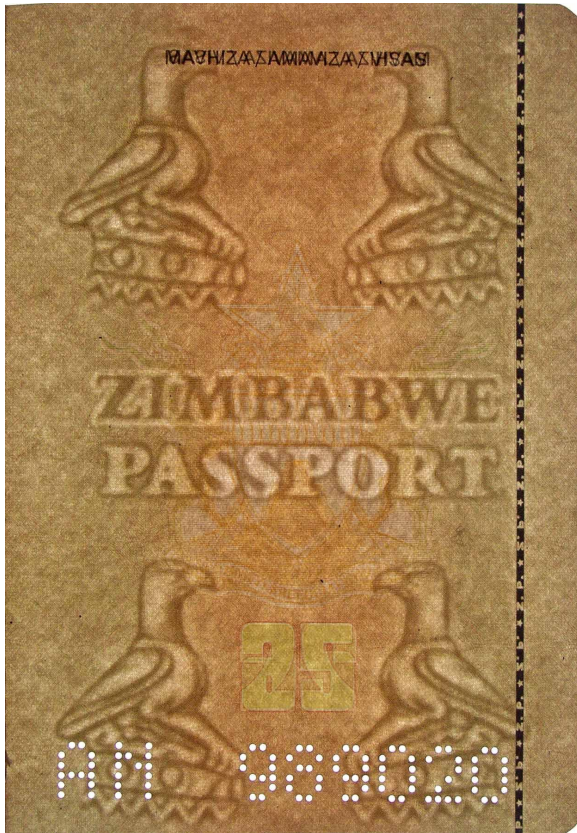
Pentru producerea unui filigran liniar în două trepte pe rola de întindere se află creșteri lipite și adâncituri gravate.



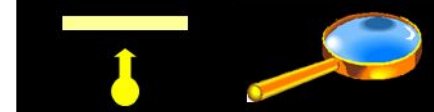


Filigran liniar

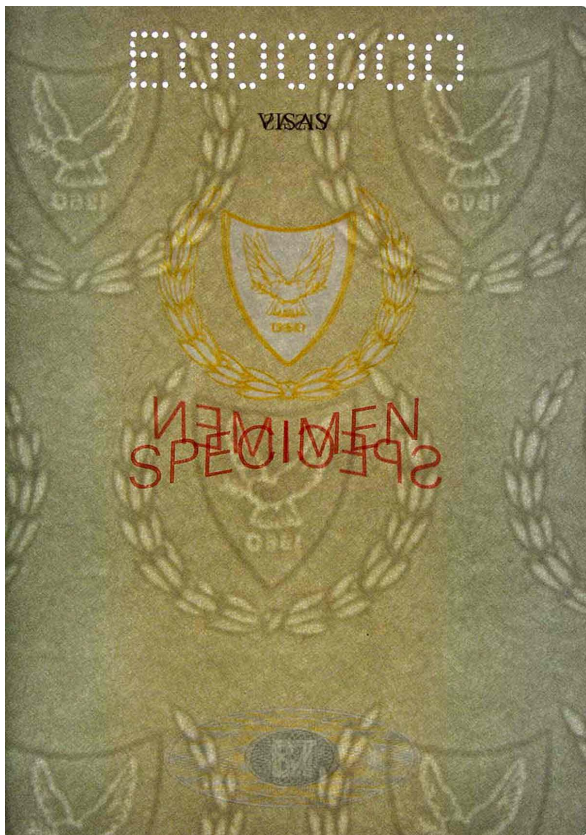
Filigan liniar în două trepte



Filigran liniar



Filigran liniar în două trepte

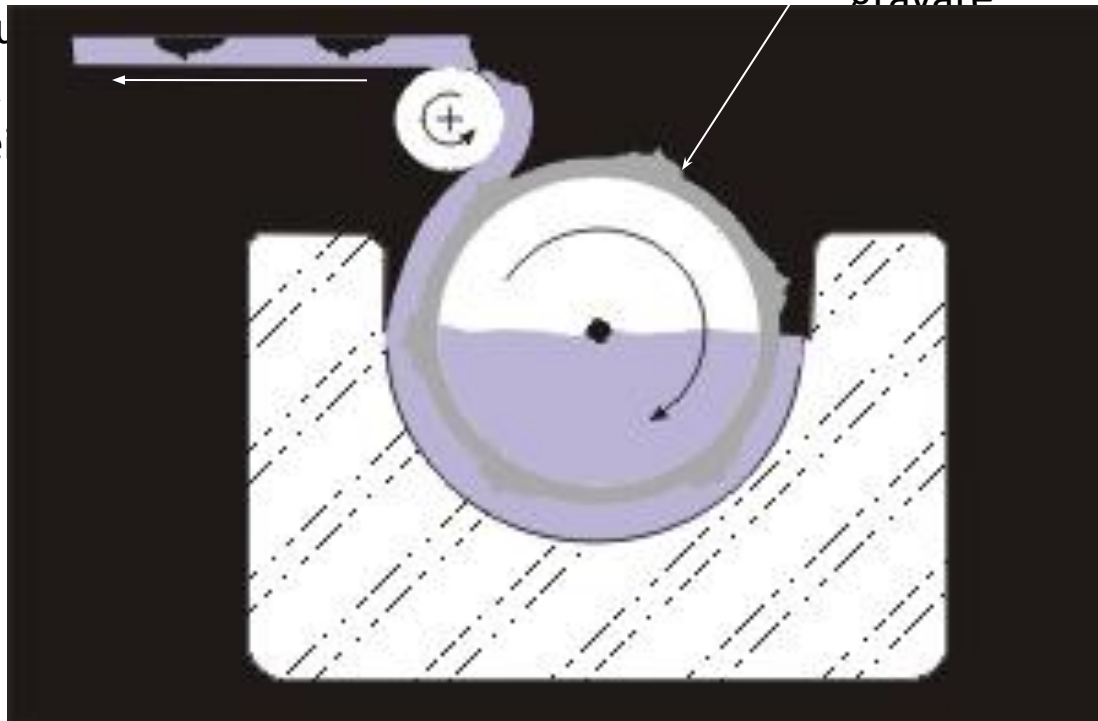


Filigran real

Filigran umbrit

Producerea unui filigran umbrit are loc pe utilajul cu sită rotundă.

Rezervor pentru
materie primă
(Pastă de hârtie)



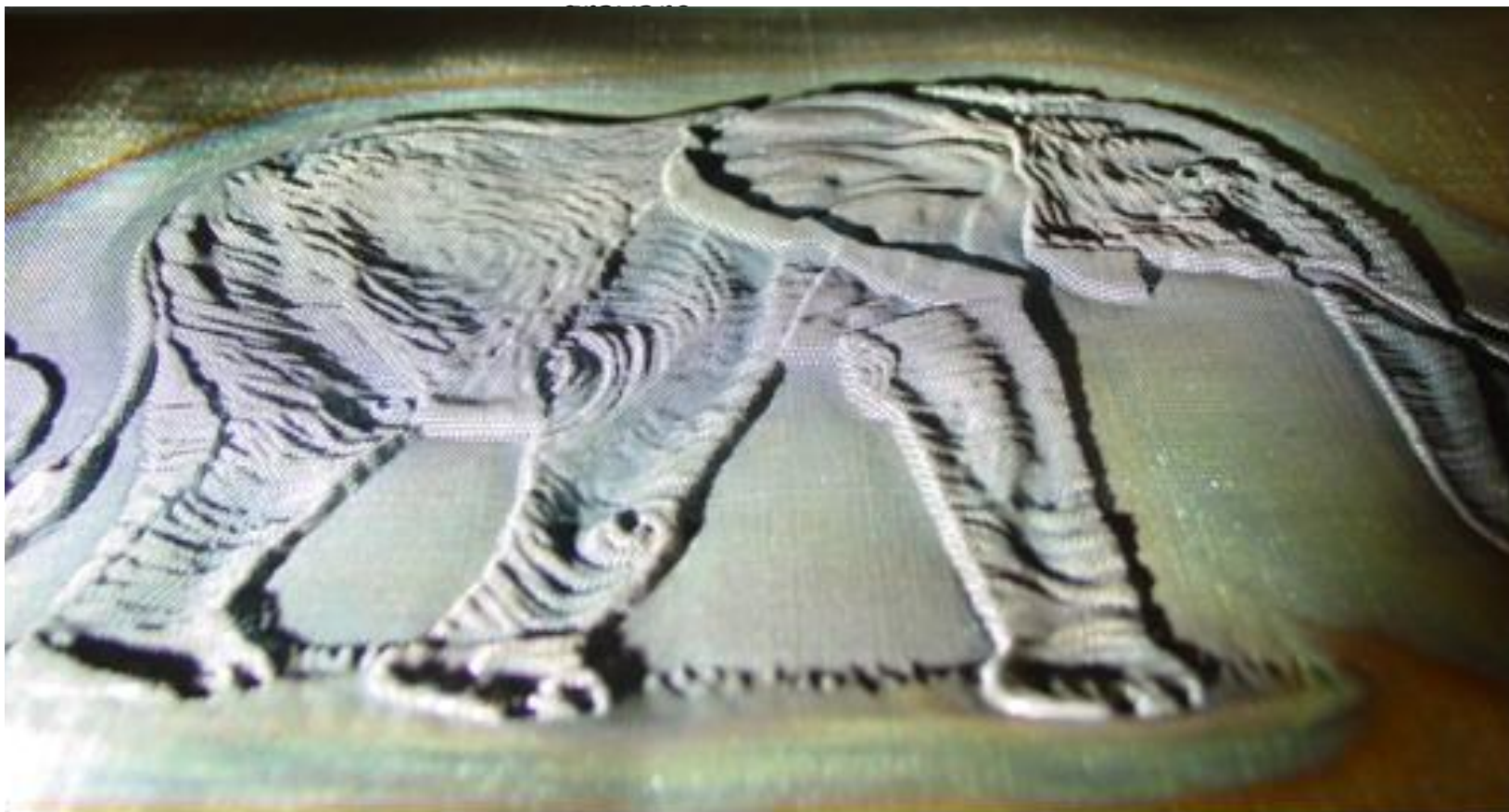
Sită rotundă cu
gravare

Filigran umbrit



Producerea unui filigran umbrit are loc pe utilajul cu sită rotundă.

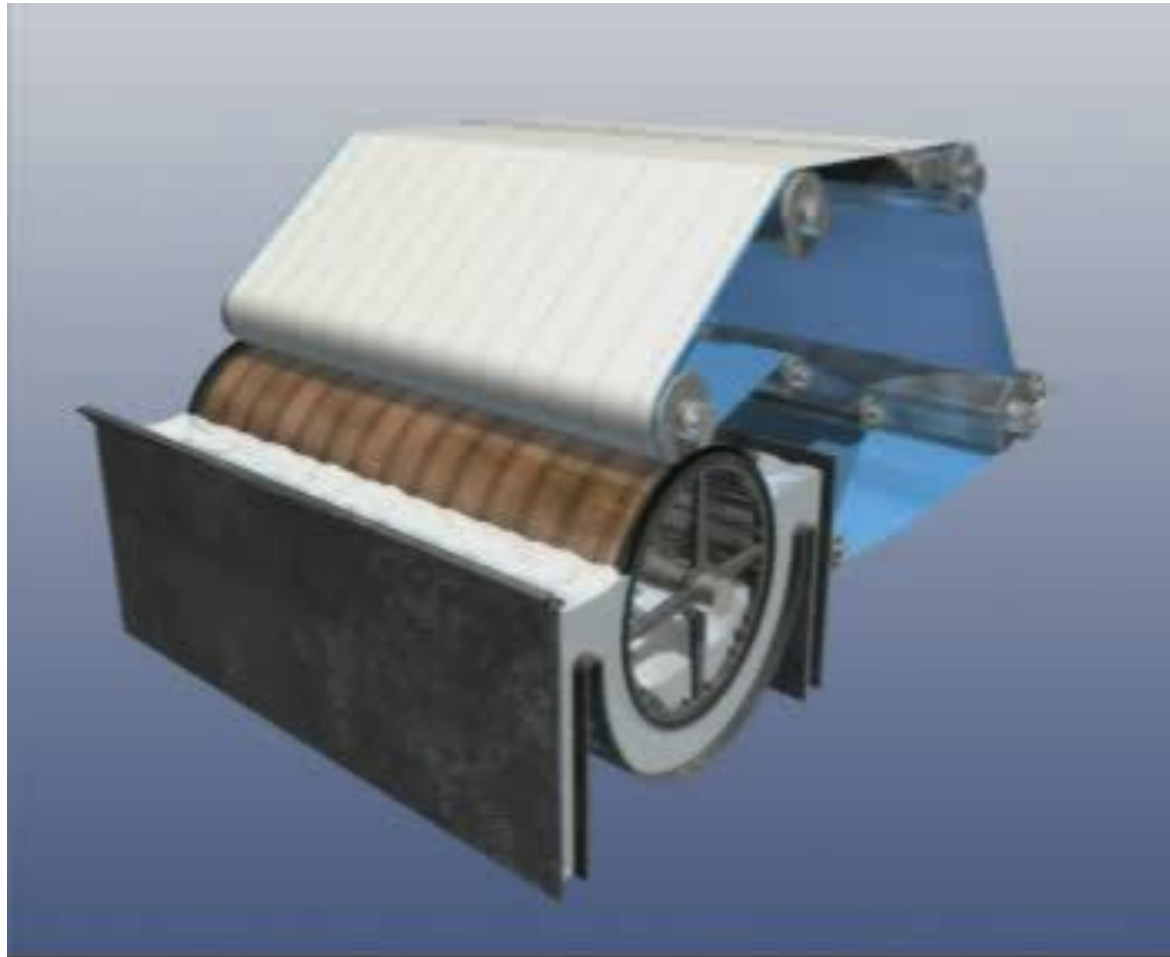
Sită rotundă cu



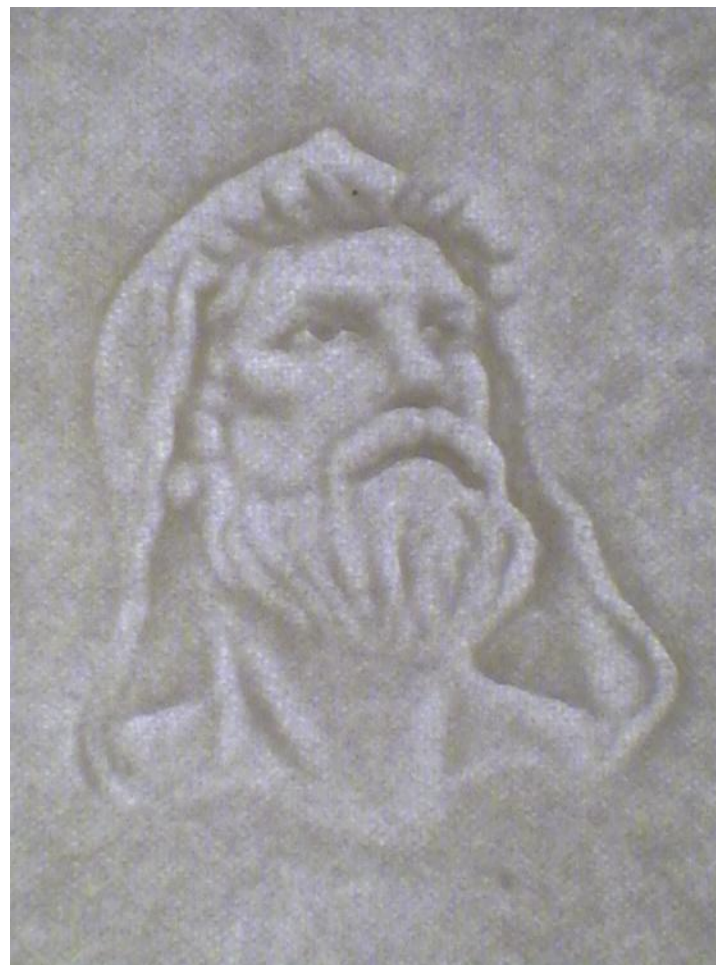
Filigran umbrit



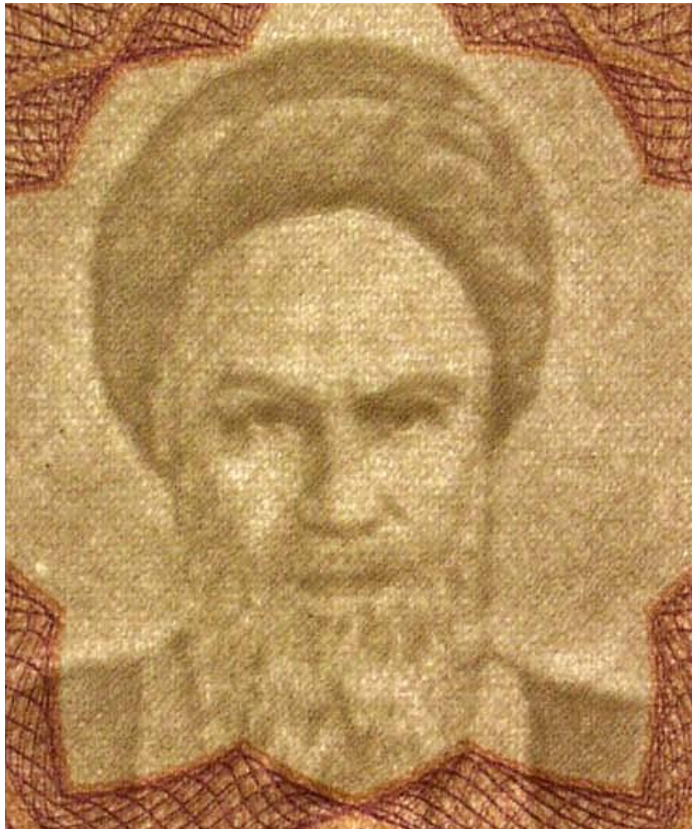
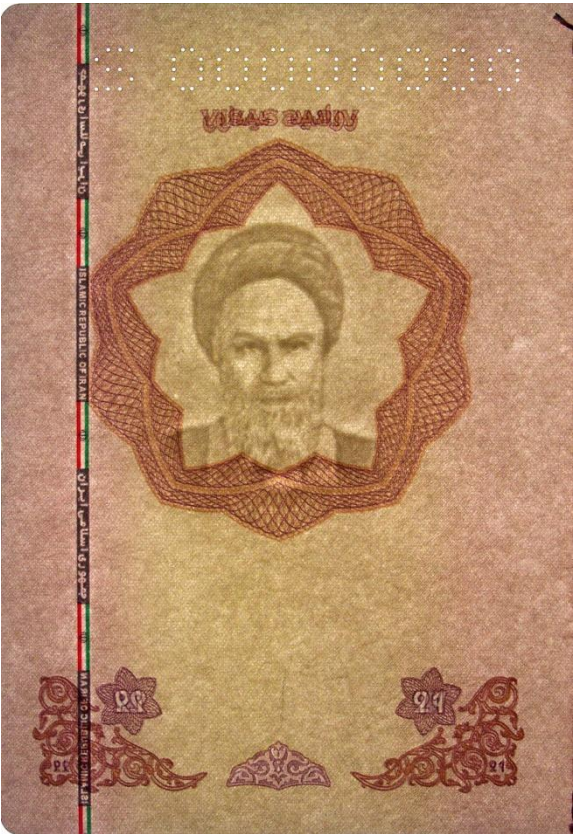
Filigran umbrit



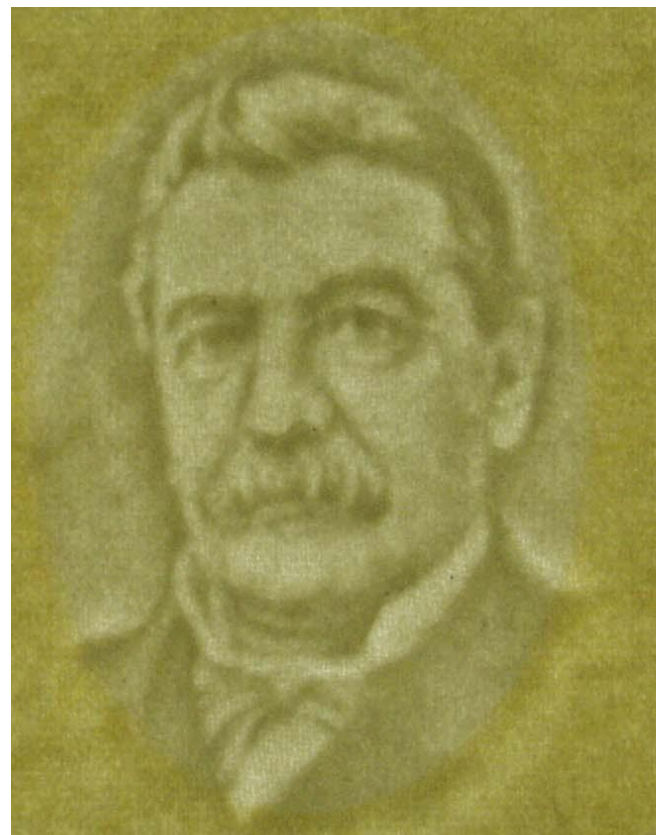
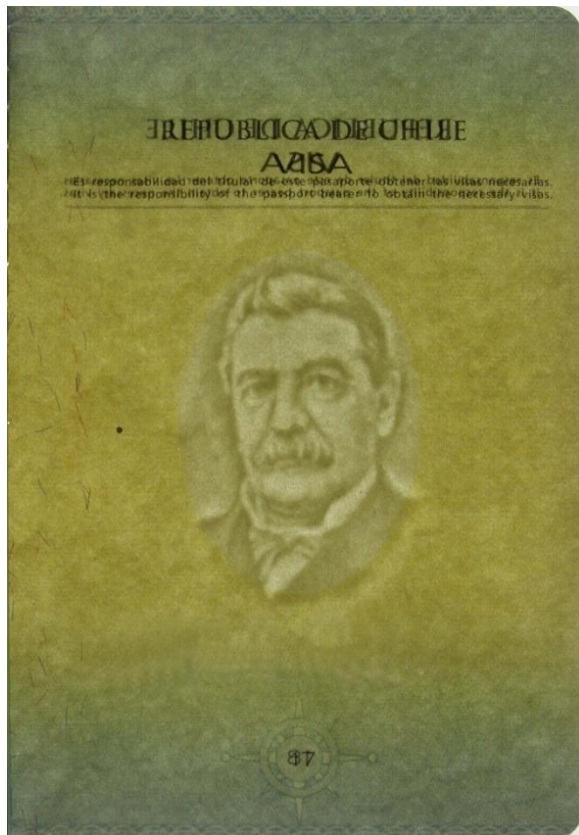
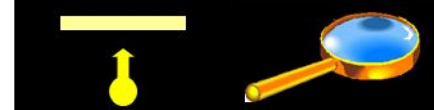
Filigran umbrit



Filigran umbrit



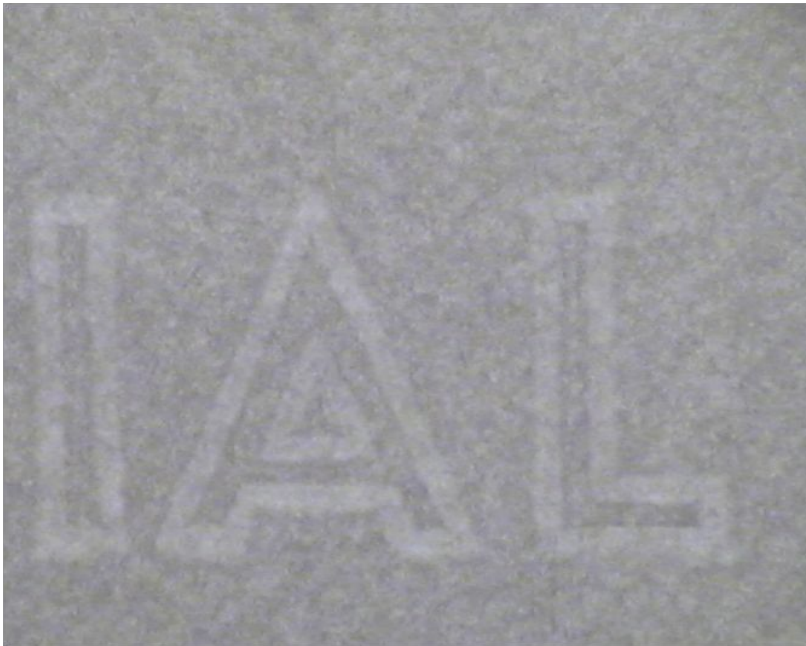
Filigran umbrit



Filigran semireal

Filigran cu Molette

Filigranele cu molette se crează de abia după formarea filei prin apăsarea cu o rolă de cauciuc gravată în care se apasă o bandă de hârtie puțin umedă.



Filigran ireal

Filigrane înălbite

Filigranul ireal se produce prin imprimarea diferitor lacuri și substanțe chimice.



Filigran înălbit

Filigranele înălbite indică, contrar filigranelor reale, margini ascuțite.

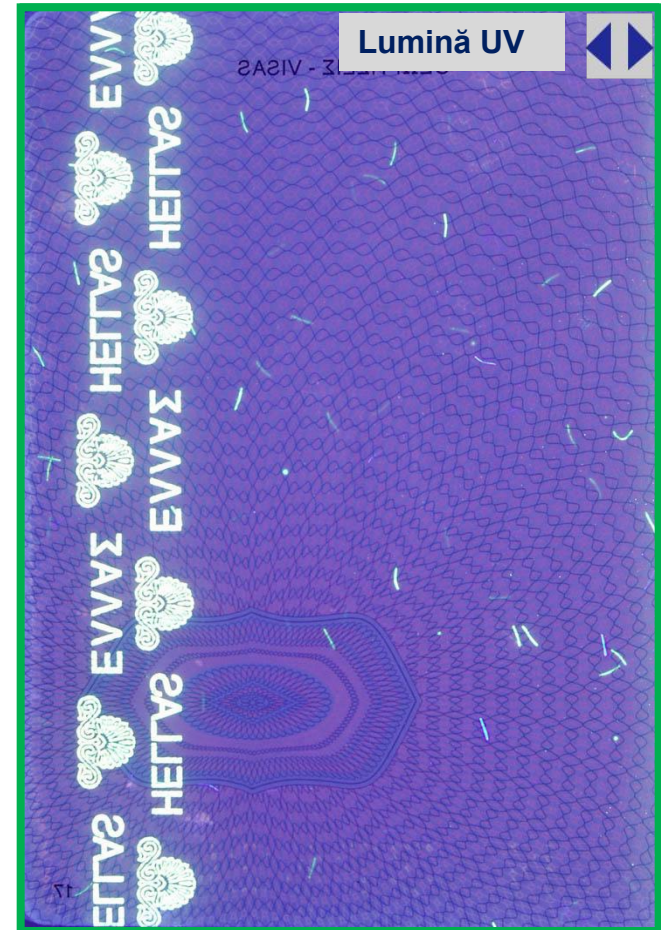
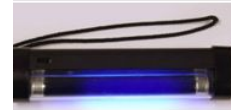
Filigran înălbit



Filigran liniar



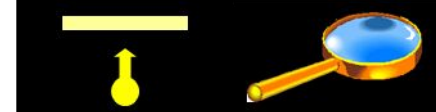
Falsificarea filigranului



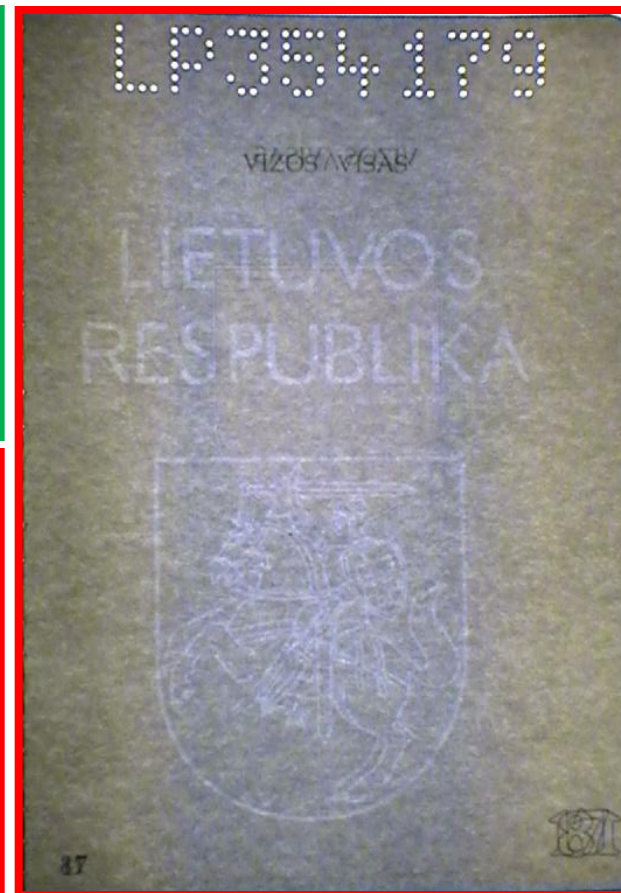
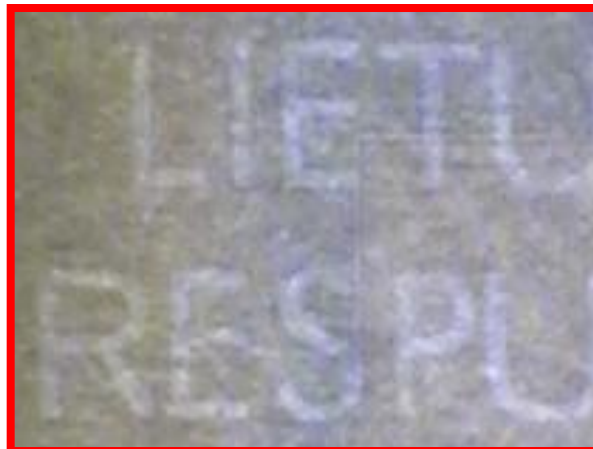
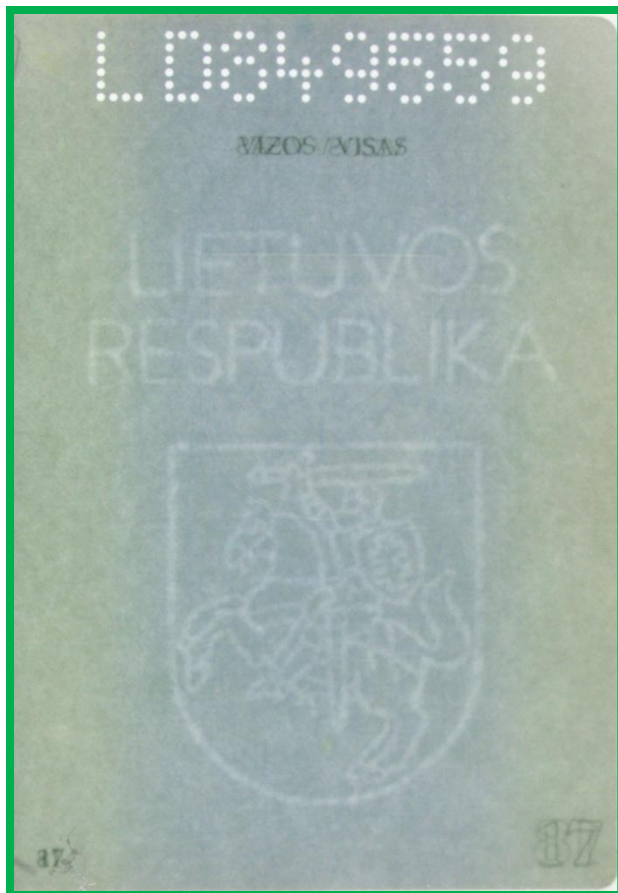
Falsificarea filigranului



Falsificarea filigranului



Date fiind particularitățile de producere, filigranele reale nu au margini ascuțite.



Fire de securitate

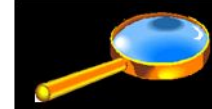


Firele de securitate constau preponderent din folii de masă plastică cu o lăţime de la 04 până la 10 mm.

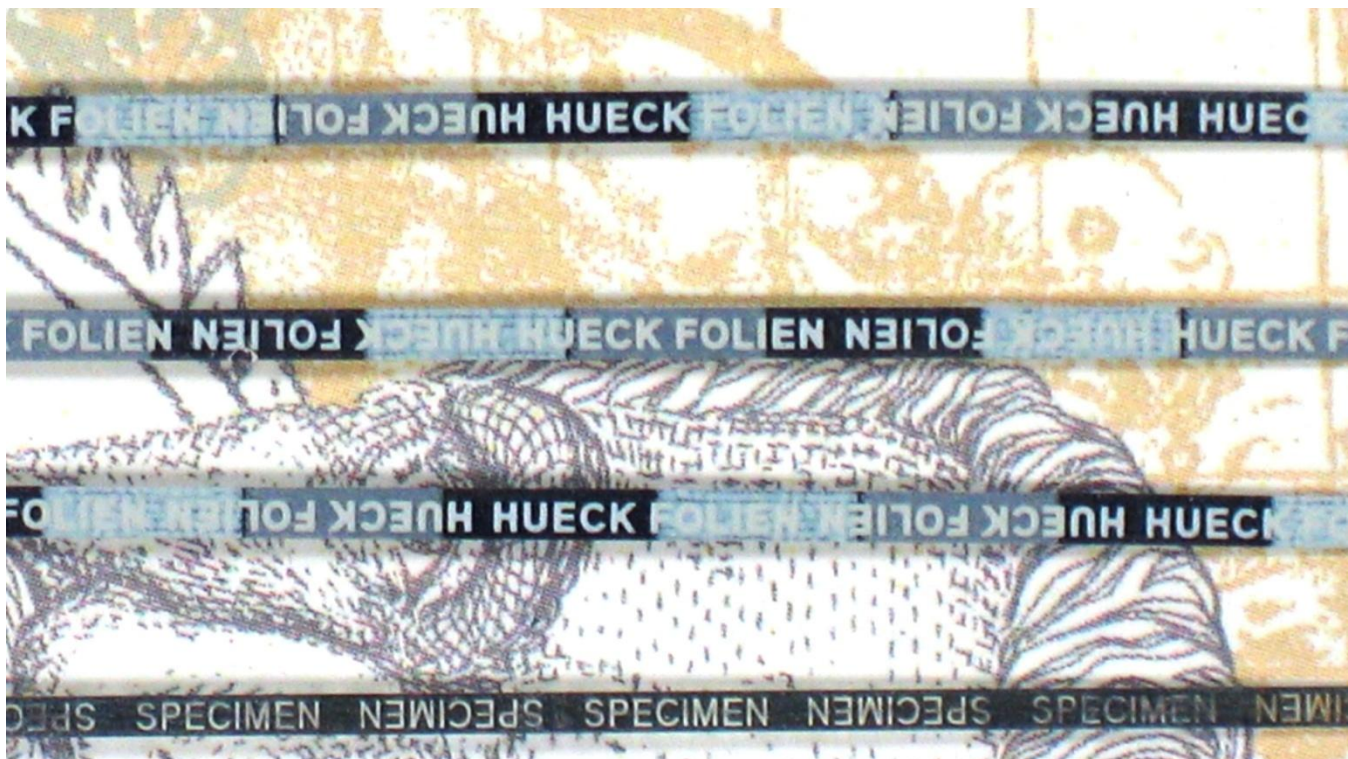
Acestea pot fi:

- cu acoperire metalică
- imprimată
- colorată
- prevăzută cu substanţe sub formă de pigment

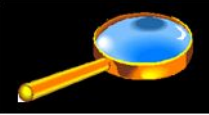
Fire de securitate



Firele de securitate cu microcaractere gravate.



Fire de securitate



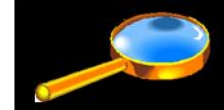
Fire colorate – microcaractere evitate



Fire transparente – microcaractere imprimare



Fire de securitate



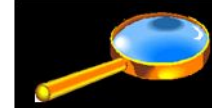
1) Culoare termocromatică (sub 25 grade)



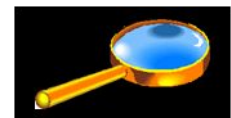
Culoare termocromice (peste 25 grade)



Fire de securitate



Fire de securitate

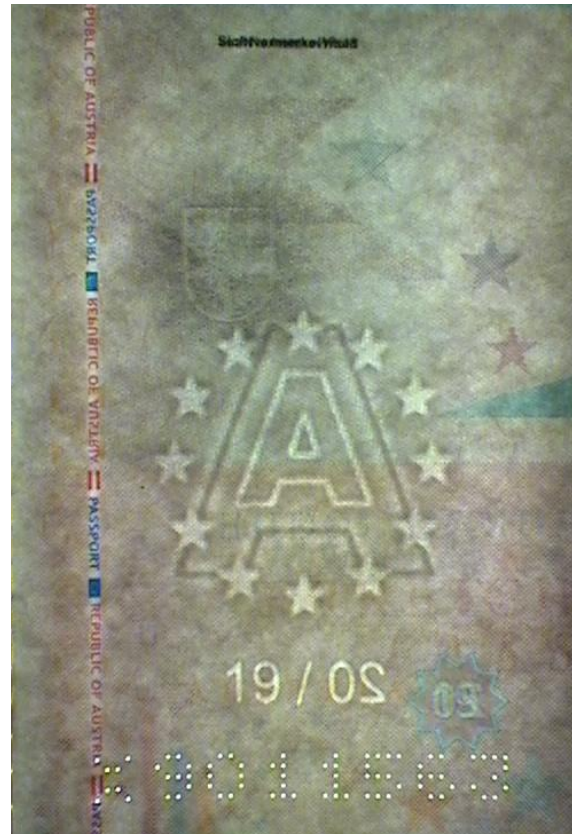


„Fire de securitate“



Fire de securitate

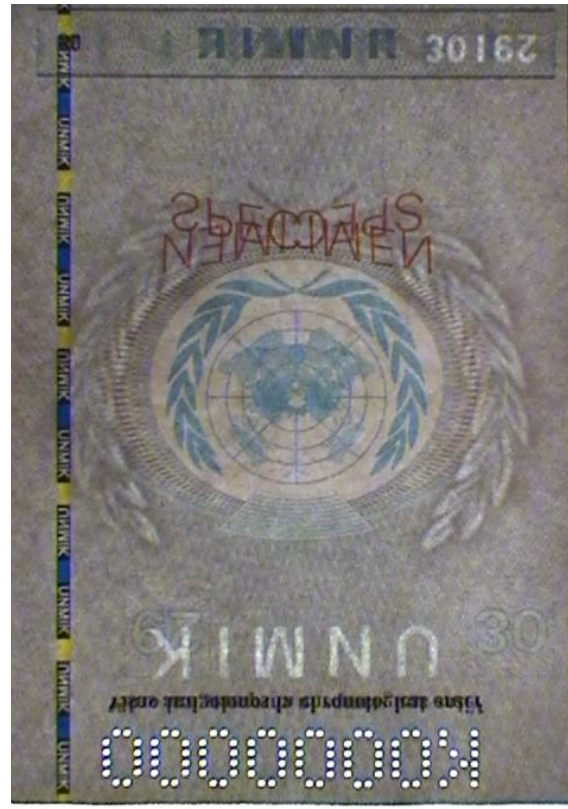
Fire transparente – microcaractere tipărite



Fire de securitate



Fire colorate – Microcaractere încastrate



Fire de securitate

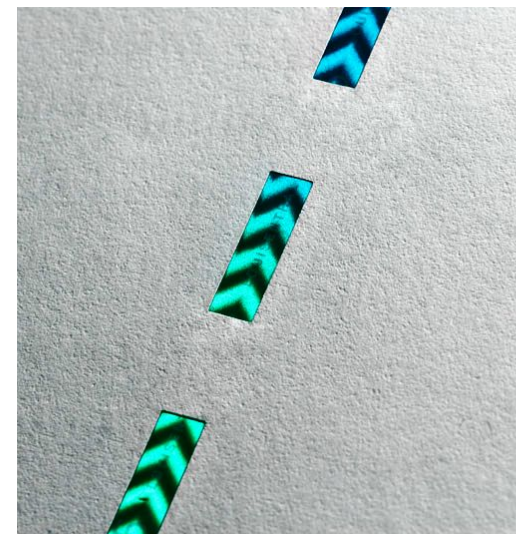
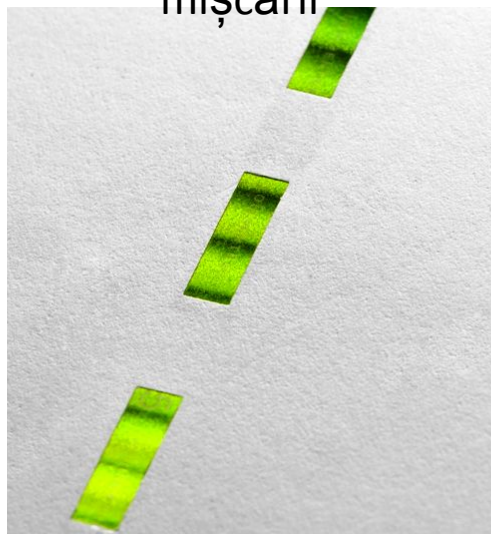
Fire de securitate variabile – Rolling Star® al firmei Louisenthal

Prin structura de „Microoglinzi” încorporate, firele de securitate au un efect de expirare a mișcării și un efect de schimbare a culorilor.

Structura microoglinzi



Schimbarea culorii și expirarea mișcării



Bildmaterial Fa. Louisenthal

Fire de securitate

Fișe de securitate optic variabile – Rolling Star® al firmei Louisenthal

Prin structura de „Microoglinzi” încorporate, firele de securitate au un efect de expirare a mișcării și un efect de schimbare a culorilor.



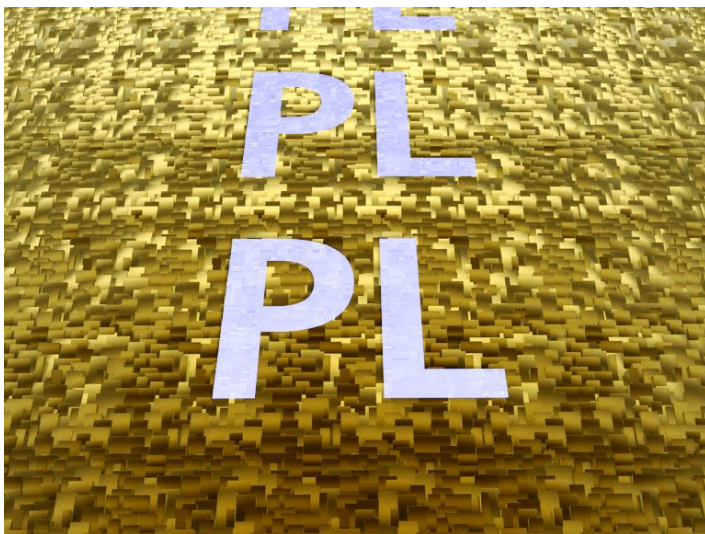
Video Fa. Louisenthal

Fire de securitate

Fire de securitate optic variabile – Rolling Star® al firmei Louisenthal

Firele de securitate pot fi prevăzute cu microcaractere transparente și Magnetism mecanolizibil.

Microcaractere transparente



Date codificate



Bildmaterial Fa. Louisenthal

Fire de securitate

Firele de securitate holografice ale firmei HUECK FOLIEN

Prin elementele de suprafață difractive se obține varierea culorilor și design-ului



Bildmaterial Fa. Hueck

Reactivi chimici

Coloranții adăugați în hârtie, care în cadrul contactului cu leșie, acizi, solvenți și înălbitori organici devin vizibili.

