

**MINISTRY OF NATIONAL DEFENCE**  
**Scientific Research Centre for CBRN Defense and Ecology**



Oltenitei Street, no. 225, sector 4, Bucharest  
Phone number: 021.322.11.99, fax: 021.332.21.15

**Approve of**

**The Head of the Scientific Research Centre  
For CBRN Defense and Ecology**

**Col.dr.ing. Gabriel EPURE**

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**TEMPORARY TECHNICAL APPROVAL**

**NO. 312**

**For the product**

***Overall PP/PE – Francesca***

**MANUFACTURER:** SC Ann Reeves & Francesca SRL, Nicolae Balcescu Bvd no.173, Pitesti, Arges

Reference documents:

1. **Manufacturer documentation:**

Request for the technical approval no. A/1808 as from 20.04.2020;

The product information sheet, 8 sheets;

Technical/certified data sheet, statements 11 sheets;



MINISTRY OF NATIONAL DEFENCE

General Director's Office for Research and Development

SECRET

Classification

Document number: 01.312.11.90, date: 12.12.1988

Approval

The Head of the Scientific Research Centre

for Military Defense and Training

Col. G. G. G. G.

Signature

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TEMPORARY TECHNICAL APPROVAL

NO. 312

For the program

Project 1191 - Transon

Approved by the Scientific Research Centre for Military Defense and Training, Bucharest, on 12.12.1988



Manufacture documentation

Project number: 1191, version: 1.0, date: 12.12.1988

The project is approved for use

Technical drawing: 1191.01.01



2. Workable standards: basic standard = SR EN 14126:2004 Protection

clothes. Performance requirements and trial methods for protection clothes against the contagious agents.

**CHOOSE THE ALTERNATIVE**

**X The Procedures and the analyzed results meet the needs and are accepted.  
The product is according to the workable specifications.**

*See The test results (annex 1)*

**The product is not according to the workable standards and specifications.**

\* Valid for the state of emergency

**TECHNICAL APPROVAL BOARD COMMITTEE SIGNATURES**

**Chairman**

Col.dr.ing. Claudiu Lazaroaie

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**Members**

1.Col.Lt.dr.ing. Ciprian Sau

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2.Cpt.ing. Ovidiu Iorga

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3.Cpt.ing, Raluca Ginghina

Illegible signature





1. Workable products have been... EN 12136:2004

...the... and... in... against the...

### CHOOSE THE BEST OPTION

7. The... and the... to the... and the...  
The... is according to the... specifications.

See the... (Annex 1)

The... is not... to the... and... specifications.

... for the... of...

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### TECHNICAL APPROVAL BOARD COMMITTEE REPORT

Chairman

Col. dr. ing. Claudiu...  
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Members

Col. dr. ing. Claudiu...  
Signature

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Col. dr. ing. Claudiu...  
Signature

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Col. dr. ing. Claudiu...  
Signature

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Annex no.1 to the Technical Approval

**DOCUMENTATION/TEST ANALYSIS**

No. Crt	Characteristics	U/M	Value/ Imposed characteristics	Obtained Value Characteristics	Conclusions	Observations (methods, standards)
1.	Pull resistance	N	According to the chart 6 categories/ pts.4.9./EN 14325	Longitudinal 110 Sectional 75	2 <sup>nd</sup> category	Gauging sheet no. 306
2.	Tearing resistance	N	According to the chart 4/ pts. 4.7./ EN 14325	Longitudinal 20 Sectional 11	1 <sup>st</sup> category	Gauging sheet No. 306
3.	Seaming resistance	N	According to the chart 13/ pts. 5.5/ EN 14325	108	3 <sup>rd</sup> category	Gauging sheet no. 306
4.	Rejection of liquids	index	According to the chart 10/ pts. 4.12./ EN 14325	Rejection index > 95% (in relation to: 3% peroxide, solution with 1% active chlorine and 70% ethanol)	3 <sup>rd</sup> category	Gauging sheet no. 306
		-	Rejection of standard test liquids according to EN 14419	Minimum 7	corresponds	Gauging sheet no. 306
5.	Resistance to liquid breakthrough	index	According to chart 11 categories/ pts. 4.13./ EN 14325	Breakthrough index < 1% (in relation to: 3% peroxide, 70% ethanol and 1% active chlorine)	3 <sup>rd</sup> category	Gauging sheet no. 306
6.	Resistance to contaminated	-	According to chart 1	> 20 kPa (hydrostatic)		



DOCUMENTAȚION TEST ANALIZIS

Caracteristică	Valori	Obținute	Obținute	Metode	Observații
Rezistență la întindere	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la tăiere	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la forfecțiune	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la răsucire	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la impact	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la coroziune	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la foc	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la vibrații	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la radiații UV	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la radiații ionizante	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la radiații electromagnetice	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la radiații infraroșii	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	
Rezistență la radiații ultraviolete	Conform EN 12566	Conform EN 12566	Conform EN 12566	EN 12566	

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	liquids breakthrough under hydrostatic pressure		categories/ pts. 4.1.4.1./ EN 14126	pressure equivalent, according to ISO 811)	6 <sup>th</sup> category	Gauging sheet no. 306
	Resistance to contaminated liquid aerosols (breakthrough factor)	%	-	<1x10 <sup>3</sup>	corresponds	Gauging sheet no. 306
8.	Skin compatibility	-	Garment materials must not cause skin irritation or have negative effects on health pts. 4.2./ EN 340	The material is not life threatening, health and work safety, does not have a negative impact on the environment.	corresponds	OEKOTEX no.HKXX certificate – No. 028292 issued by Testex Textile Testing Institute, Switzerland

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Garment no 306	6 <sup>th</sup> category	pressure equivalent according to ISO 211	EN 14126 4.1 + 4.2	liquid resistance to penetration and resistance to abrasion
Garment no 306	corresponds	- (X) -		resistance to penetration and abrasion
DEKOR containing no 03200 resistant to abrasion resistant to abrasion	corresponds	The material is not resistant to abrasion and wear resistant to abrasion and wear	EN 14126 4.1 + 4.2 resistant to penetration and abrasion	resistance to penetration and abrasion

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**Scientific Research Centre for CBRN Defense and Ecology UNCLASSIFIED**

**Unique sample**

**CBRN Protection Equipment Laboratory**

Oltenitei Street, no. 225, sector 4, Bucharest

Phone number: 021.322.11.99, fax: 021.332.21.15

**APPROVE OF**

Head of the CBRN Scientific Research Centre

For Defense and Ecology Bucharest

Colonel doctor engineer

**Gabriel Epure**

**MEASUREMENTS SHEET**

**No. 306 from 23.04.2020**

**Date : 23.04.2020**

**Product name: Overall PP/PE – Francesca**

**Product quantity: 3 overalls;**

**Manufacture order: SC ANN Reeves & Francesca SRL company demand, Nicolae Balcescu Blvd. No. 173, Pitesti, Arges, registered with no. A/1808 as from 20.04.2020.**





MINISTRY OF NATIONAL DEFENCE

Scientific Research Centre for CBRN Defense and Ecology

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CBRN Protection Equipment Laboratory

Ottomov Street, no. 227, sector 4, Bucharest

Phone number: 021 322.11.99 / fax: 021 322.21 12

APPROVE OF

Head of the CBRN Scientific Research Centre

Research and Ecology Branch

Chief laboratory engineer

Equipment Group

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MEASUREMENTS SHEET

No. 306 from 23.04.2020

Date: 23.04.2020

Product name: Overall PPE - Gamma

Product quantity: 3 overalls

Manufacturer order: SA - AOK Research & Protection SRL company located, Pitesti

Product No: 173, Pitesti, Pitesti registered with no. ANI/018/04/2020





### 1. TESTING RESISTANCE TO HAULING

**Testing methods:** The test was realized according to the EN ISO 13934-1 requirements.

**Obtained results:** longitudinal – 110 N, sectional – 75 N

### 2. TESTING RESISTANCE TO TRAPEZOID TEARING

**Testing methods:** The test was realized according to the EN ISO 9073-4 requirements

**Obtained results:** longitudinal – 20 N, sectional – 11 N

### 3. TESTING SEAMING RESISTANCE

**Testing methods:** The test was realized according to the EN ISO 13935-1

**Obtained results:** 108 N

### 4. TESTING THE BREAKTHROUGH/ REJECTION IN RELATION TO LIQUIDS

**Testing method:** the rejection in relation to liquids evaluation was made by 3 methods:

4.1. According to the SR EN ISO 6530 requirements, by using the following: 3 % peroxide, 70% ethanol and 1% active chlorine;

**Obtained results:** for each of the 3 solutions there have been resulted the following parameters:

- Breakthrough parameter: < 1%
- Rejection parameter: > 95% for 3% peroxide solution with 1% active chlorine and 70% ethanol.

4.2. pouring a couple of testing liquid drops, with the approximate volume of 0,05 ml, in order to evaluate the material reaction, according to EN ISO 14419, after 30 seconds;

**Obtained results:** the liquid spreads over the material, but there is no breakthrough, minimum mark 7.

4.3. the reaction evaluation to hydrostatic pressure, according to the SR EN ISO 811:2018 requirements. The testing was realized on a garment material and on patches.

**Obtained results:** resistance to hydrostatic pressure is >20 kPa for the material.





TESTING RESISTANCE TO HEATING

Testing method: The test was realized according to the EN ISO 12944-1 requirements.  
Obtained results: longitudinal - 10 N, vertical - 25 N

TESTING RESISTANCE TO THERMAL TEARING

Testing method: The test was realized according to the EN ISO 9073-4 requirements.  
Obtained results: longitudinal - 20 N, vertical - 11 N

TESTING PEELING RESISTANCE

Testing method: The test was realized according to the EN ISO 13081-1

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Obtained results: 108 N

TESTING THE BREAKTHROUGH PROTECTION IN RELATION TO

Testing method: the protection in relation to liquid corrosion was made by 3 methods:

1) According to the SR EN ISO 6523 requirements by using the following products: 70% ethanol and 10% acetic solution

Obtained results: for each of the 3 solutions there have been tested the following parameters:

- Breakthrough parameter: 1%
- Breakdown parameter: 97% for 70% ethanol solution with 10% acetic acid and 70% ethanol

2) During a cycle of testing liquid water with the approximate volume of 0.05 ml, in 10 seconds, the external reaction, according to EN ISO 14130, after 30 seconds

Obtained results: during the testing phase no water entered, but there is no breakthrough minimum

3) The reaction evaluation is performed by means of the SR EN ISO 11120 requirements. The testing was realized on a constant amount and on one day

Obtained results: resistance to hydrostatic pressure is 0.2 MPa for the material





## 5. TESTING THE CONTAMINATED LIQUID AEROSOLS BREAKTHROUGH RESISTANCE

**Testing methods:** the resistance to aerosols breakthrough evaluation was realized by using a non-standard method. The test was realized by using a couple of paraffin oil aerosols polydispersed, with 0,02-0,04  $\mu\text{m}$  dimension, at a 85...95 l/min output, at a 50mg/m<sup>3</sup>, using a TSI 8130 testing model stand.

**Obtained results:** The aerosols breakthrough factor was  $<1 \times 10^{-3}\%$

Enforcers                      Illegible signatures

Eng. Florentina ALEXE

Sblt. Camelia TUDORAN

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TESTING THE CONTAMINATED LIQUID RESIN'S BREAKTHROUGH

RESISTANCE

Testing methods: The resistance to acetone breakthrough was realized by using a non-standard method. The test was realized by using a sample of 100g of resin, which was dispersed with 100-150 ml of acetone in a 250 ml beaker at 25°C, using a 250 ml testing model stand.

Obtained results: The acetone breakthrough time was <math>< 10^3</math> s.

Signature: Ilieșcu Ștefan

The presence of:

Ilieșcu Ștefan

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Subsemnatul **DUBIŢ EMILIAN GABRIEL**, interpret și traducător autorizat pentru Limba Engleză în temeiul autorizației nr. 17927 din data de 14.12.2006, eliberată de Ministerul Justiției din România, certifică exactitatea traducerii efectuate din limba engleză în limba română, că textul prezentat a fost tradus complet, fără omisiuni, și că, prin traducere, înscrisului nu i-au fost denaturate conținutul și sensul.

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Traducerea înscrisului prezentat are un număr de 7 pagini și a fost efectuată potrivit cererii scrise înregistrate cu nr. 20, păstrate în arhiva subsemnatului.

S-a încasat onorariul de 462 lei, cu chitanță/ bon fiscal/ ordin de plată nr. 86.

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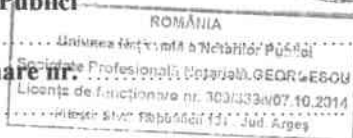
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Licență de funcționare nr.

Sediul



**ÎNCHEIERE DE LEGALIZARE A SEMNĂTURII TRADUCĂTORULUI nr. R.1**

Anul 2020 luna 05 ziua 04

Iulia Georgescu, notar public, în temeiul art. 12 lit. j) din Legea notarilor publici și a activității notariale nr. 36/1995, legalizez semnătura de mai sus, aparținând lui **DUBIŢ EMILIAN GABRIEL**, interpret și traducător autorizat, în baza specimenului de semnătură depus la biroul notarial, de pe cele 2 exemplare ale înscrisului, care are ca parte integrantă o copie a actului tradus.

Înscrisul a cărui traducere se solicită este un înscris

S-a încasat onorariul de 300 RON, cu chitanță/ bon fiscal/ ordin de plată nr. 13414/2020

Notar public,



I, the undersigned, **DUBIŢ EMILIAN GABRIEL**, sworn interpreter and translator for English Language by the Authorisation no. 17927 of December 14<sup>th</sup> 2006, issued by the Romanian Ministry of Justice, certify the exactness of this translation from English into Romanian, that the presented text has been completely translated, with no ellipsis, and that, by translation, the document suffered no falsification of the content and meaning.

The document whose translation is solicited completely/ in excerpt has, in its thoroughness a number of 4 pages, has the title/name TECHNICAL APPROVAL NO 312, was issued by the MINISTRY OF DEFENCE, and was presented to me completely/ in excerpt.

The translation of the document has a number of 7 pages and was performed according to the written request registered under the no. 20 in my Archive.

Fee perceived of 462 lei, with receipt/ bill/ bill of credit no. 86

**SWORN INTERPRETER – TRANSLATOR**



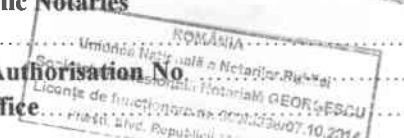
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**CONCLUSION OF AUTHENTICATION OF THE TRANSLATOR'S SIGNATURE NO. R.1**

Year 2020 Month 05 Day 04

Iulia Georgescu Notary Public, on the ground of the art. 12, letter "j" of the notaries public and notarial activity no. 36/1995, certify the above signature of **DUBIŢ EMILIAN GABRIEL**, sworn interpreter and translator, based on the sample signature deposited to the Notary Office, of the 2 document original copies, which has as integral part a copy of the translated documents.

The document whose translation is solicited is a

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Notary Public,

