ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 7 | Issue: 5 | May 2021|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2021: 8.047 || ISI Value: 1.188

ANALYSIS OF COMPOSITIVE ARMATURES

Otakulov Bahromjon Adhamovich Phd[1]., Solijonov Hojiakbar Solijon o'g'li[2]

[1]Docent of Fergana Polytechnic Institute, "Production of Building Materials, Products and constructions" Department, Fergana, Uzbekistan

[2]Assistant of Fergana Polytechnic Institute, "Production of Building Materials, Products and constructions" Department, Fergana, Uzbekistan

ANNOTATION

Composite reinforcement is a reinforcement made of glass or basalt fibers impregnated with a polymer-based binder. There are also options for the production of products from carbon and aramid fibers. Depending on the material used in the production, such reinforcing rods are called glass, basalt or carbon fiber. From the outside, the material of manufacture is very easy to identify: fiberglass reinforcement is light with a yellowish color, basalt and carbon fiber rods are black. Like metal reinforcement, the composite rod has a periodic cut to provide the required working conditions as part of the reinforced concrete structure.

KEYWORDS: ***Composite reinforcement, polymer, glass fiber, basalt fiber, carbon fiber, aramid fiber.***

INTRODUCTION

Today, the world has entered the development of new techniques and technologies. As a result of the development of science and technology, great changes are taking place in metallurgy. New types of products are being produced instead of metal. For example, a material that can best be compared to steel or aluminum alloys is a composite or composite material. According to encyclopedic materials, the meaning of "Composite" is as follows: "Metallic or non-metallic materials with reinforcement in a given direction. One of the modern composite materials is reinforced concrete. It is known that when making reinforced concrete, the concrete is hardened around the steel reinforcement. The result is a kind of monolith, in which the concrete is mainly compressive, the reinforcement is tensile. Composite reinforcement is used as the most modern composite building material.

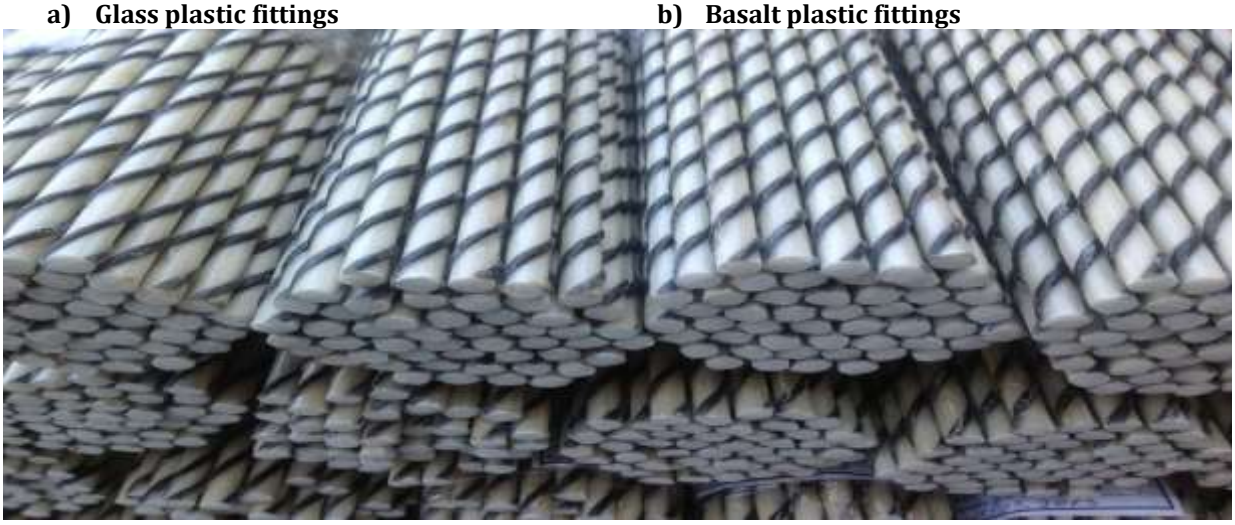
Composite fittings are marked as follows

AK - glass-composite (glass-plastic) fittings based on fiberglass;
ABK- basalt-composite (basalt plastic) reinforcement based on basalt fibers;
AUK - composite reinforcement based on carbon fibers;
AAK - aramid composite reinforcement based on aramid fibers;
AKK- is a composite reinforcement based on the above fibers.

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 7 | Issue: 5 | May 2021|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2021: 8.047 || ISI Value: 1.188

a) Glass plastic fittings

b) Basalt plastic fittings



c) Carbon fiber armature

Table comparing the properties of composite reinforcement with Class A-III steel reinforcement

Classification	A-III (A400S) classic metal luminaire	Composite luminaire
Material	After'lat	Glass fiber bonded with epoxy resin
Elongation strength , MPa	390	1300
Elasticity module, MPa	200 000	55 000
Relative elongation,%	25	2,2
Thermal conductivity, W / (mK)	46	0,35
Coefficient of linear expansion, b, 10−6 / ° C	13-15	9-12
Zichligi, t / m^3	7,8	1,9
Resistance to aggressive environments	Corrodes	Stainless material
Thermal conductivity	It conducts heat	Heatproof
Electrical conductivity	Conducts electricity	Dielectric
Produced profiles, mm	6-80	4-20

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 7 | Issue: 5 | May 2021|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2021: 8.047 || ISI Value: 1.188

Length	Stems 6-12m long	At the request of the customer
Lifetime	Based on construction standards	Longevity is not less than 80 years
Replacement of fittings according to their physical and mechanical properties	6A-III 8A-III 10A-III 12A-III 14A-III 16A-III 18A-III 20A-III	4 ASP 6. ASP 7. ASP 8. ASP 10 ASP 12 ASP 14 ASP 16 ASP
Weight, kg (when replaced by)	6A-III - 0,222 8A-III - 0,395 10A-III - 0,617 12A-III - 0,888 14A-III - 1,21 16A-III - 1,58 18A-III - 2,0 20A-III - 2,47	4 ASP - 0,02 6 ASP - 0,05 7 ASP - 0,07 8 ASP - 0,08 10 ASP - 0,12 12 ASP - 0,20 14 ASP - 0,26 16 ASP - 0,35

CONCLUSION

From this table we can conclude that: Modern composite fittings can meet all technological requirements. Advantages of composite fittings: lightweight, inexpensive and stainless and corrosion resistant.

LIST OF USED LITERATURE

1. *http://nanobuild.ru/*
2. *http://remont.komimarket.ru/modules/articles/article.php?id=368*
3. *http://www.rusnanonet.ru/nanoindustry/construction/constr_field/*
4. *http://sgmlab.ru/nanotechnology-in-medicine/metodicheskie-rekomendacii-informacionno-obrazovatelnyj-resurs-po-nanotexnologiyam/*
5. *http://www.allbeton.ru/*
6. *http://www.ibeton.ru/*
7. *http://www.t-o-s.ru/*
8. *http://www.pre-stess.ru/4st.htm*
9. *http://gb-stroy.ru/sushhnost-zhelezobetona/94-prednapryazhennyj-zhelezobeton-ego-sushhnost-i.html*
10. *http://www.bibliotekar.ru/spravochnik-104-stroymaterialy/2.htmhttps://assz.ru/uz/chto-takoe-kompozicionnye-materialy-kompozicionnye-materialy/*