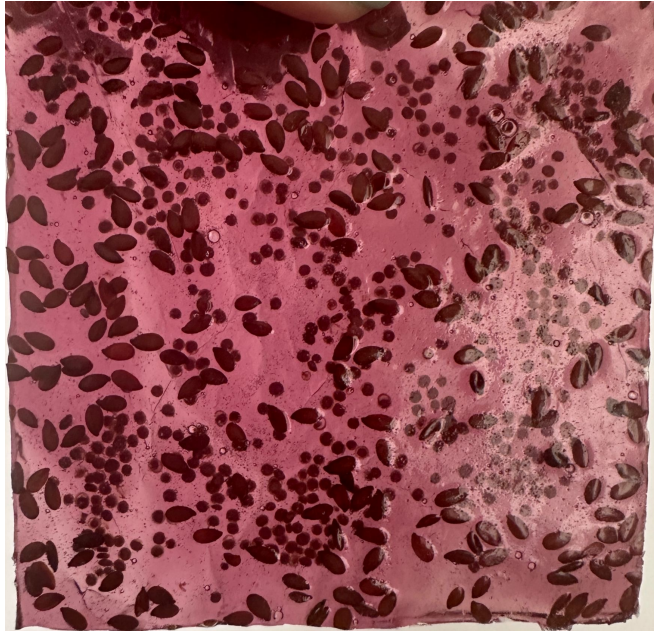


BIOPLASTICS

MERVE TIĐLI

SİMGE SOLAKLAR

Gelatin-based recipes



Recipe1

80 mL cabbage juice

20 g gelatin

20 g glycerin

1 teaspoon flaxseed

1 teaspoon quinoa



Recipe2

80 mL water

20 g gelatin

2 tsp honey

20 g glycerin

50 g strawberry pulp



Gelatin-based corn tassel bioplastic

Ingredient List



20g Gelatine



5g corn tassel



20g glycerine



60g lemon juice



Preparation Steps



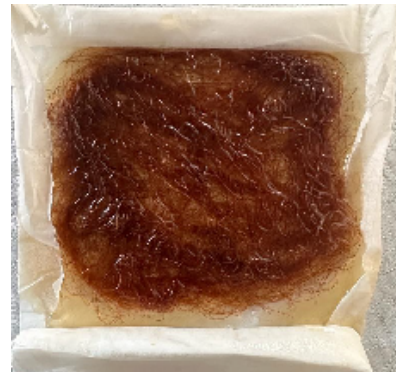
Material Assessments

- hard
- smooth
- matte
- elastic
- strong

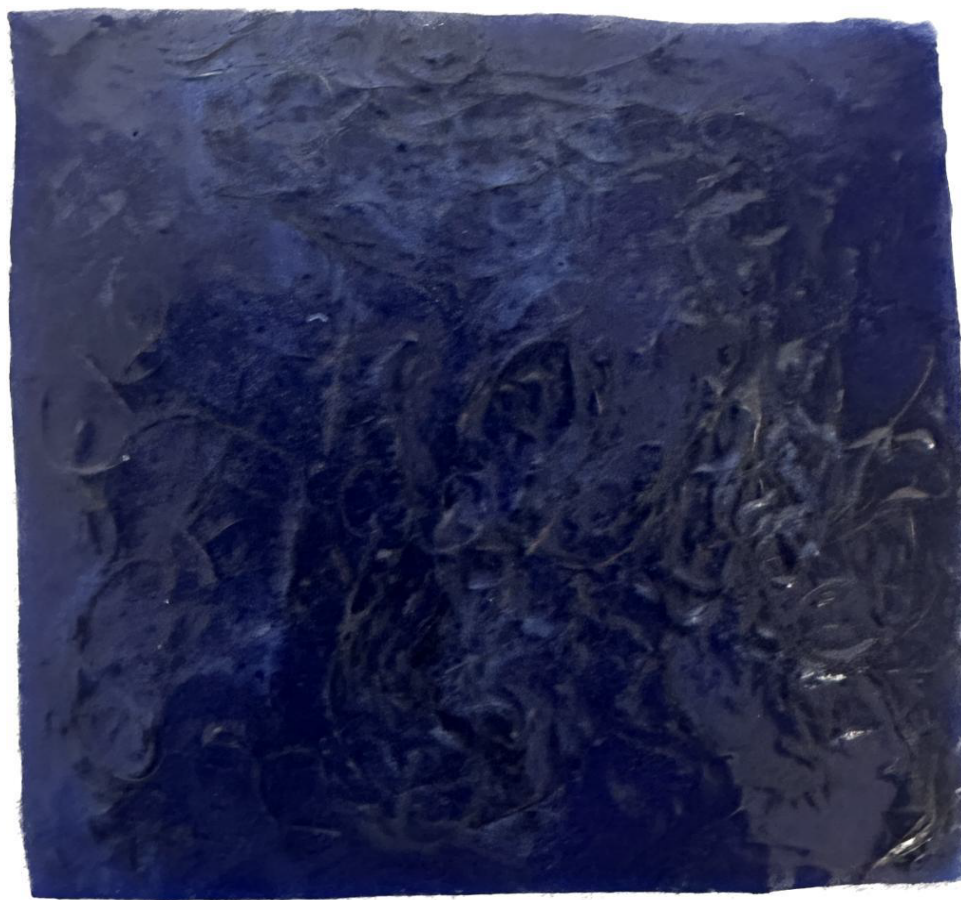
- soft
- rough
- opaque
- tough
- light
- fibred
- transparent
- ductile
- heavy
- not-fibred

Forming Technique

References



STUDENT NAMES



Gelatin-based corn tassel bioplastic

Ingredient List



20g Gelatine 0.5 g corn tassel 20g glycerine 60 mL water 1 tsp indigo

Preparation Steps



Material Assessments

hard	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	soft	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
smooth	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	rough	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
matte	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	glossy	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
elastic	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	not elastic	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
strong	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	weak	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
opaque	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	transparent	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
tough	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	ductile	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
light	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	heavy	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
fibred	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	not-fibred	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Forming Technique

References

STUDENT NAMES





Gelatin-based indigo bioplastic

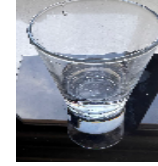
Ingredient List



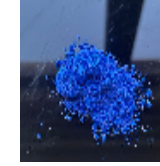
20g Gelatine



20g glycer-
ine



60 ml
water



1 tsp
indigo

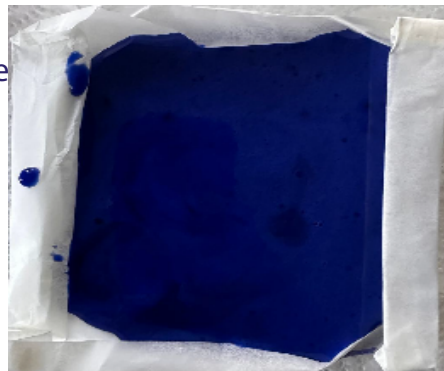
Preperation Steps



Material Assessments

hard	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	soft	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
smooth	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	rough	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
matte	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	glossy	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
elastic	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	not elastic	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
strong	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	weak	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
opaque	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	transparent	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
tough	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	ductile	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
light	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	heavy	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
fibred	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	not-fibred	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Forming Technique



References



STUDENT NAMES



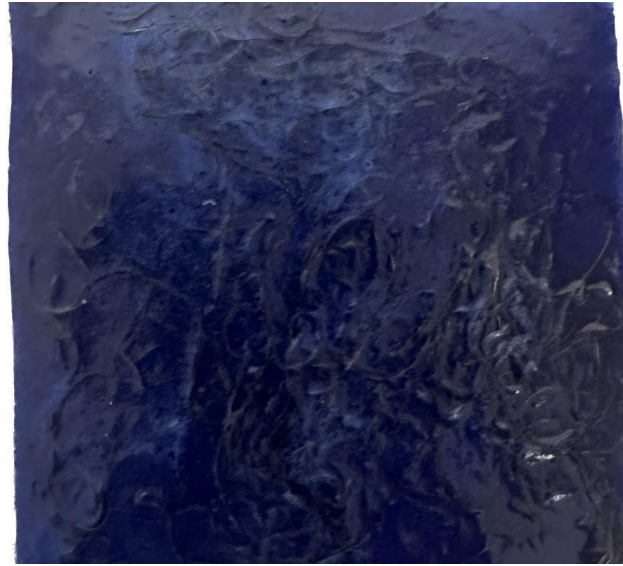
54 mL water

6 mL lemon juice

20 g gelatin

20 g glycerin

2 g corn tassel



60 mL water

20 g gelatin

1 teaspoon indigo

20 g glycerin

0.5 g corn tassel



60 mL water

20 g gelatin

1 teaspoon indigo

20 g glycerin



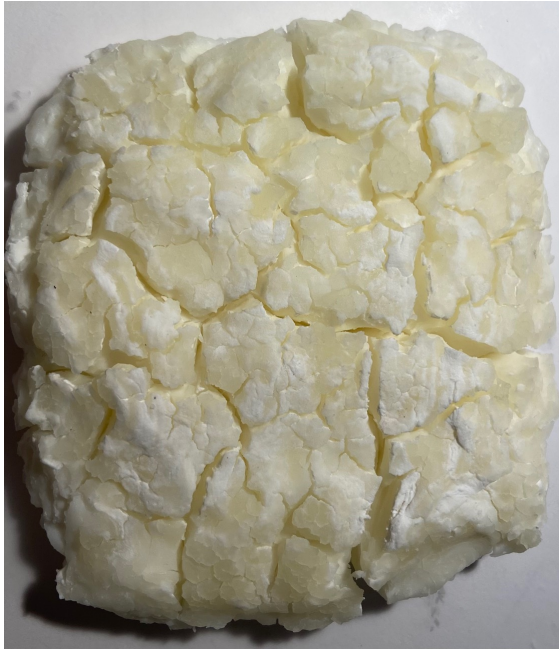
80 mL water
20 g gelatin
2 tsp honey
20 g glycerin
1 teaspoon quinoa
5 g Dried plants



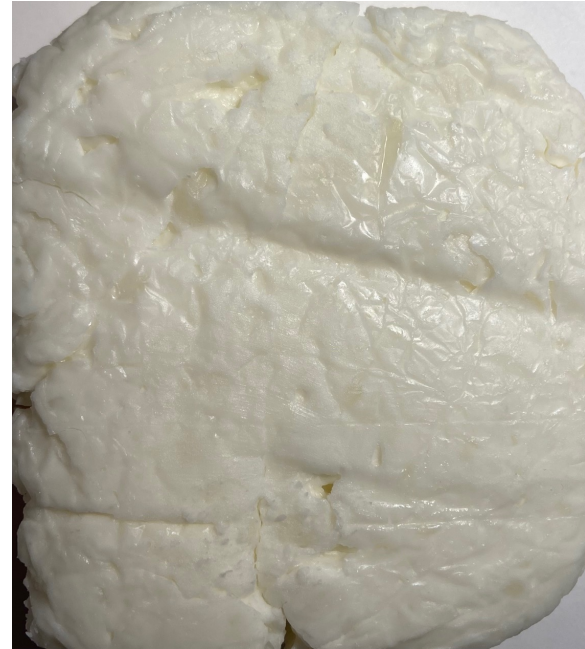
60 mL water
20 g gelatin
5 g dried rose petals
20 g glycerin

Starch-based recipes

First trial



200 ml water
200 g corun starch
10 g coconut oil
10 g glycerin





10 g vinegar
10 g glycerin
10 g turmeric
200 ml water
200 g corn starch
10 g honey



10 g vinegar
15 g glycerin
10 g turmeric
300 ml water
200 g corn starch
15 g honey



Turmeric bioplastic

Ingredient List



15 g
GLYCERİN



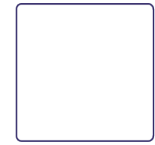
200 g
CORN STARCH



10 g
TURMERIC

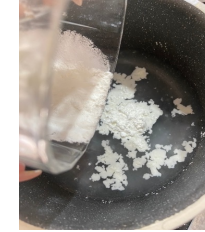


15 g
HONEY



10 G VİNEGAR
300 ML WATER

Preperation Steps



Material Assessments

hard	<input checked="" type="checkbox"/>	soft	<input type="checkbox"/>	opaque	<input checked="" type="checkbox"/>	transparent	<input type="checkbox"/>
smooth	<input checked="" type="checkbox"/>	rough	<input type="checkbox"/>	tough	<input checked="" type="checkbox"/>	ductile	<input type="checkbox"/>
matte	<input checked="" type="checkbox"/>	glossy	<input type="checkbox"/>	light	<input checked="" type="checkbox"/>	heavy	<input type="checkbox"/>
elastic	<input checked="" type="checkbox"/>	not elastic	<input type="checkbox"/>	fibred	<input checked="" type="checkbox"/>	not-fibred	<input type="checkbox"/>
strong	<input checked="" type="checkbox"/>	weak	<input type="checkbox"/>				

Forming Technique

References

Simge Solaklar
Merve Tıgılı





20 g of tea
10 g honey
10g of glycerin
200 ml of water
100 g corn starch
10 g of coconut oil



20 g of tea
10 g honey
20 g of glycerin
300 ml of water
100 g corn starch
10 g of coconut oil



200 ml of tea juice
20 g of glycerin
100 g corn starch



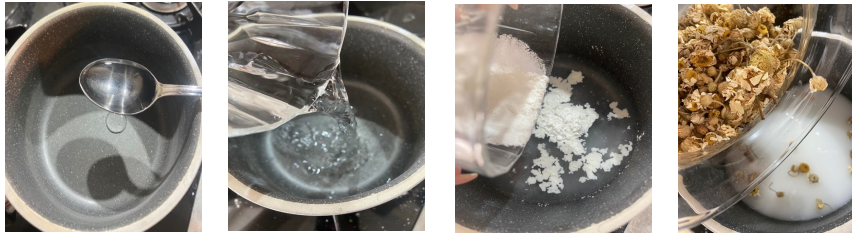
starch-based dried flowering bioplastic

Ingredient List



30 g GLYCERIN 100 g CORN STARCH 200 ml WATER DRIED FLOWERS

Preparation Steps



Material Assessments

hard	<input type="checkbox"/>	soft	<input checked="" type="checkbox"/>	opaque	<input checked="" type="checkbox"/>	transparent	<input type="checkbox"/>
smooth	<input type="checkbox"/>	rough	<input checked="" type="checkbox"/>	tough	<input type="checkbox"/>	ductile	<input type="checkbox"/>
matte	<input checked="" type="checkbox"/>	glossy	<input type="checkbox"/>	light	<input checked="" type="checkbox"/>	heavy	<input type="checkbox"/>
elastic	<input type="checkbox"/>	not elastic	<input checked="" type="checkbox"/>	fibred	<input type="checkbox"/>	not-fibred	<input type="checkbox"/>
strong	<input checked="" type="checkbox"/>	weak	<input type="checkbox"/>				

Forming Technique

References

Simge Solaklar
Merve Tıgılı



Sources

<https://yjad.yildiz.edu.tr/storage/upload/pdfs/1656575220-tr.pdf>