



WHEAT

Ingredient List



Starch



Glycerine



Water



Rice vinegar



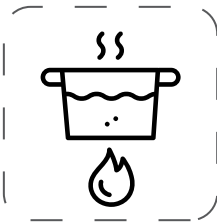
Wheat



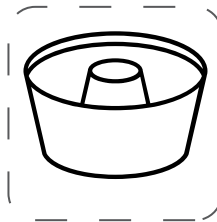
Preperation Steps



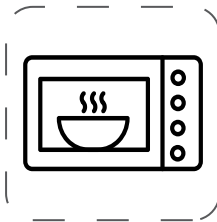
Mix all



Boil it



Put into mold



Microwave it

Material Assessments

hard ☒ ☐ ☐ ☐ ☐

smooth ☒ ☒ ☒ ☒ ☒

matte ☒ ☒ ☐ ☐ ☐

elastic ☒ ☒ ☐ ☐ ☐

strong ☒ ☒ ☐ ☐ ☐

soft

rough

glossy

not elastic

weak

opaque ☒ ☐ ☐ ☐ ☐

tough ☒ ☒ ☒ ☒ ☐

light ☒ ☒ ☒ ☐ ☐

fibred ☒ ☐ ☐ ☐ ☐

transparent

ductile

heavy

not-fibred

Forming Technique

References

isola.design
www.materiom.org





OAT

Ingredient List



Starch



Glycerine



Water



Rice vinegar



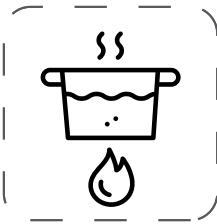
Oat



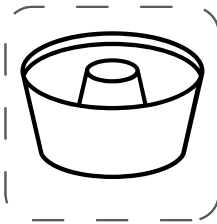
Preperation Steps



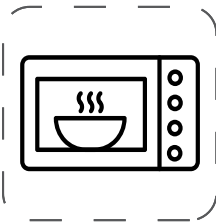
Mix all



Boil it

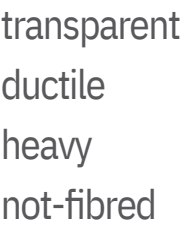
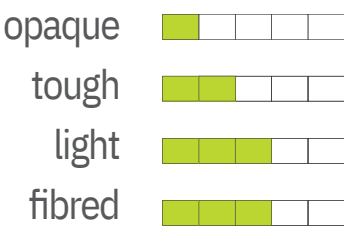
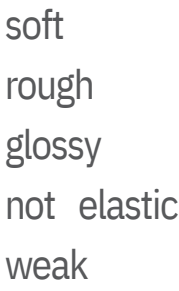
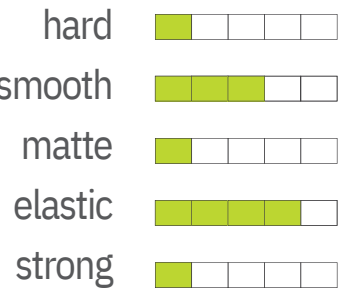


Put into mold



Microwave it

Material Assessments



Forming Technique



References

isola.design
www.materiom.org



RICE

Ingredient List



Starch



Glycerine



Water



Rice vinegar



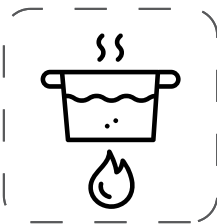
Rice



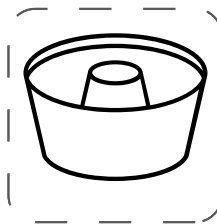
Preperation Steps



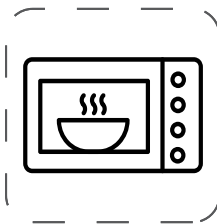
Mix all



Boil it



Put into mold



Microwave it

Material Assessments

hard	<div><div></div><div></div><div></div><div></div><div></div></div>
smooth	<div><div></div><div></div><div></div><div></div><div></div></div>
matte	<div><div></div><div></div><div></div><div></div><div></div></div>
elastic	<div><div></div><div></div><div></div><div></div><div></div></div>
strong	<div><div></div><div></div><div></div><div></div><div></div></div>

soft	<div><div></div><div></div><div></div><div></div><div></div></div>
rough	<div><div></div><div></div><div></div><div></div><div></div></div>
glossy	<div><div></div><div></div><div></div><div></div><div></div></div>
not elastic	<div><div></div><div></div><div></div><div></div><div></div></div>
weak	<div><div></div><div></div><div></div><div></div><div></div></div>

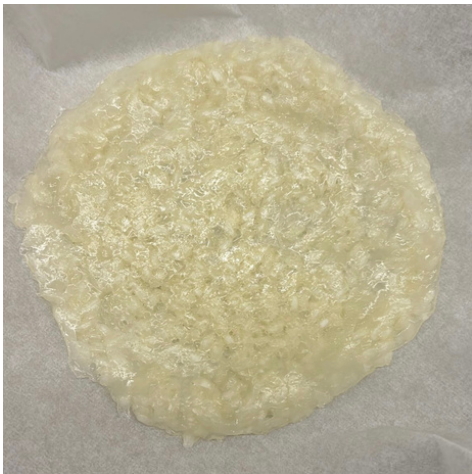
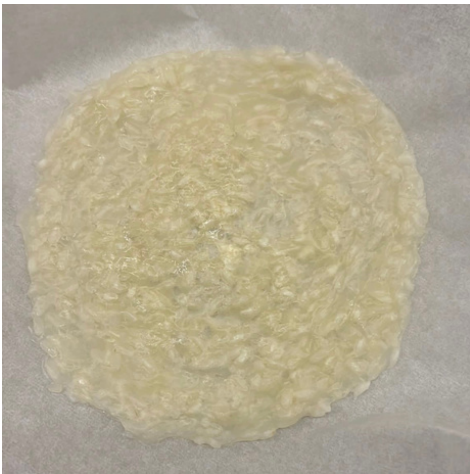
opaque	<div><div></div><div></div><div></div><div></div><div></div></div>
tough	<div><div></div><div></div><div></div><div></div><div></div></div>
light	<div><div></div><div></div><div></div><div></div><div></div></div>
fibred	<div><div></div><div></div><div></div><div></div><div></div></div>

transparent	<div><div></div><div></div><div></div><div></div><div></div></div>
ductile	<div><div></div><div></div><div></div><div></div><div></div></div>
heavy	<div><div></div><div></div><div></div><div></div><div></div></div>
not-fibred	<div><div></div><div></div><div></div><div></div><div></div></div>

Forming Technique

References

isola.design
www.materiom.org





Ingredient List



Gelatine



Agar agar



Glycerine



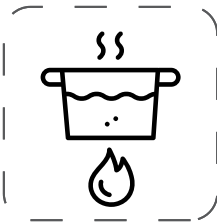
Beetroot
juice



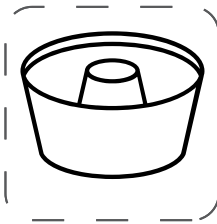
Preperation Steps



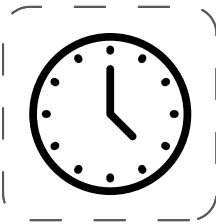
Mix all



Boil it

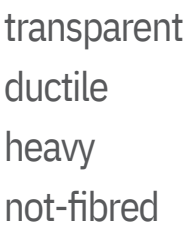
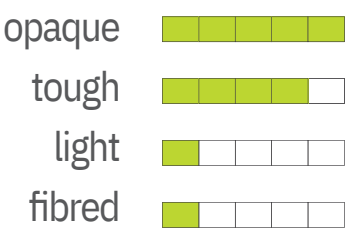
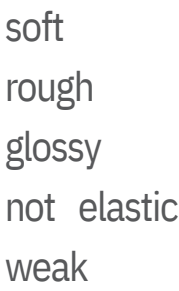
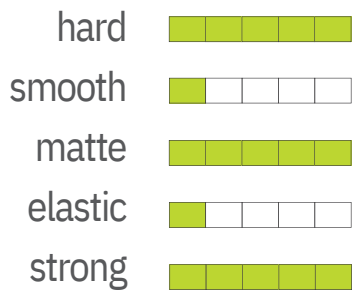


Put into mold



Leave it to dry

Material Assessments



Forming Technique

References

isola.design
www.materiom.org





BEETROOT PEELS

Ingredient List



Gelatine



Agar agar



Glycerine



Water



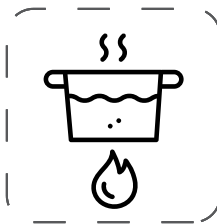
Beetroot
peels



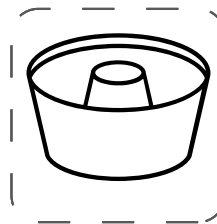
Preperation Steps



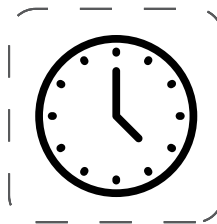
Mix all



Boil it



Put into mold



Leave it to
dry

Material Assessments

hard ☒ ☐ ☐ ☐ ☐ ☐

smooth ☒ ☐ ☐ ☐ ☐ ☐

matte ☒ ☐ ☐ ☐ ☐ ☐

elastic ☒ ☐ ☐ ☐ ☐ ☐

strong ☒ ☐ ☐ ☐ ☐ ☐

soft ☐ ☐ ☐ ☐ ☐ ☐

rough ☐ ☐ ☐ ☐ ☐ ☐

glossy ☐ ☐ ☐ ☐ ☐ ☐

not elastic ☐ ☐ ☐ ☐ ☐ ☐

weak ☐ ☐ ☐ ☐ ☐ ☐

opaque ☒ ☐ ☐ ☐ ☐ ☐

tough ☒ ☐ ☐ ☐ ☐ ☐

light ☒ ☐ ☐ ☐ ☐ ☐

fibred ☒ ☐ ☐ ☐ ☐ ☐

transparent ☐ ☐ ☐ ☐ ☐ ☐

ductile ☐ ☐ ☐ ☐ ☐ ☐

heavy ☐ ☐ ☐ ☐ ☐ ☐

not-fibred ☐ ☐ ☐ ☐ ☐ ☐

Forming Technique

References

isola.design
www.materiom.org





MASHED BEETROOT

Ingredient List



Gelatine



Agar agar



Glycerine



Water



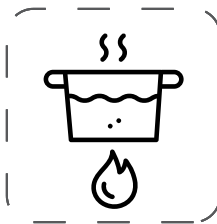
Mashed
beetroot



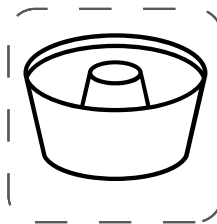
Preperation Steps



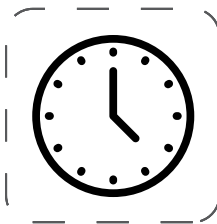
Mix all



Boil it



Put into mold



Leave it to
dry

Material Assessments

hard ☒ ☐ ☐ ☐ ☐ ☐

smooth ☒ ☒ ☒ ☒ ☐ ☐

matte ☒ ☒ ☐ ☐ ☐ ☐

elastic ☒ ☒ ☒ ☐ ☐ ☐

strong ☒ ☒ ☐ ☐ ☐ ☐

soft ☐ ☐ ☐ ☐ ☐ ☐

rough ☐ ☐ ☐ ☐ ☐ ☐

glossy ☐ ☐ ☐ ☐ ☐ ☐

not elastic ☐ ☐ ☐ ☐ ☐ ☐

weak ☐ ☐ ☐ ☐ ☐ ☐

opaque ☒ ☐ ☐ ☐ ☐ ☐

tough ☒ ☒ ☐ ☐ ☐ ☐

light ☒ ☒ ☒ ☒ ☐ ☐

fibred ☒ ☒ ☒ ☒ ☐ ☐

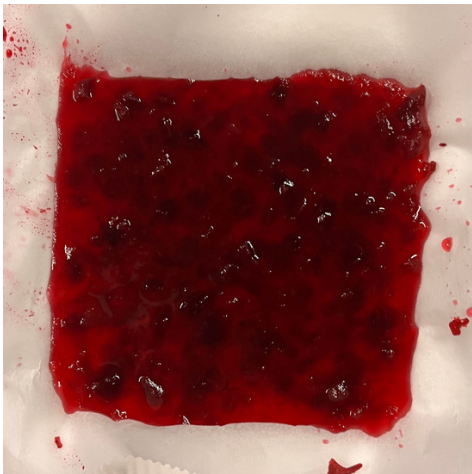
transparent ☐ ☐ ☐ ☐ ☐ ☐

ductile ☐ ☐ ☐ ☐ ☐ ☐

heavy ☐ ☐ ☐ ☐ ☐ ☐

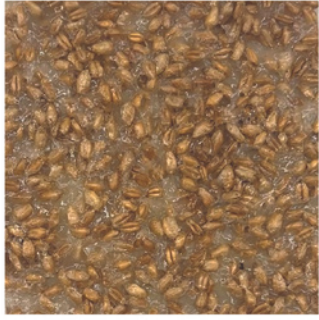
not-fibred ☐ ☐ ☐ ☐ ☐ ☐

Forming Technique



References

isola.design
www.materiom.org



S-1



S-2



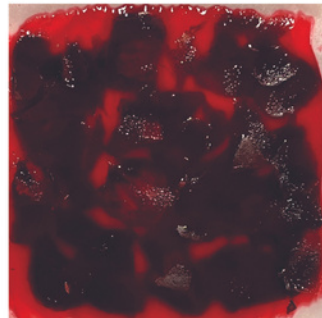
S-3

Starch based samples

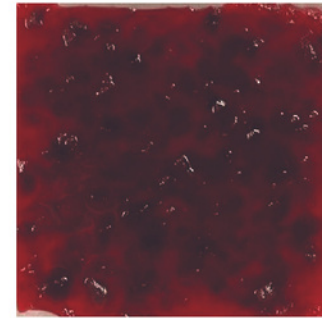
S1,2,3



G-1



G-2



G-3

Gelatin based samples

G1,2,3



Drying Method

Watt

Time period

S - 1
Starch 15 g
Glycerine 10 mL
Water 60 mL
Rice vinegar 5 mL
Wheat 15 g

microwave: ☒

air dry: ☐

800

3 minutes

S - 2
Starch 15 g
Glycerine 10 mL
Water 60 mL
Rice vinegar 5 mL
Oat 15 g

microwave: ☒

air dry: ☐

800

3 minutes

S - 3
Starch 15 g
Glycerine 10 mL
Water 60 mL
Rice vinegar 5 mL
Rice 15 g

microwave: ☒

air dry: ☐

800

3 minutes

Drying Method

Watt

Time period

G - 1
Gelatine 10 g
Agar agar 1/2 tbsp
Glycerine 10 mL
Beetroot juice 1 cup

microwave: ☐

air dry: ☒

-

2 days

G - 2
Gelatine 10 g
Agar agar 1/2 tbsp
Glycerine 10 mL
Water 1 cup
Beetroot peels 40 g

microwave: ☐

air dry: ☒

-

2 days

G - 3
Gelatine 10 g
Agar agar 1/2 tbsp
Glycerine 10 mL
Water 1 cup
Mashed beetroot 40g

microwave: ☐

air dry: ☒

-

2 days

Observations about the materials and their effects (starch based)

- 1) Each material had their own specific influence on the texture and color.
- 2) S1 is the most flexible and S2 is the least flexible.
- 3) The usage of rice made S3 shiny.
- 4) In S2 oat got mixed and disintegrated into smaller parts and this created some stiffness.

Observations about the materials and their effects: (gelatin based)

- 1) G1 is the most flexible and G3 is the least flexible.
- 2) G1 is the most transparent and G3 is the least transparent.
- 3) The usage of peels and mashed beetroot created different patterns.
- 4) Owing to the usage of beetroots, all samples are red.