

# Upgradowany Żywiec Białe

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **18**
- SRM **2.4**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.5 liter(s)**

## Steps

- Temp **52 C**, Time **25 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **8.8 liter(s)** of strike water to **56.9C**
- Add grains
- Keep mash **25 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **19.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Heidelberg	2 kg (54.1%)	80.5 %	2
Grain	Pszeniczny	0.5 kg (13.5%)	85 %	4
Adjunct	Pszenica niesłodowana	1 kg (27%)	75 %	3
Grain	Płatki owsiane	0.2 kg (5.4%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's - Belgian Wit M21	Wheat	Dry	10 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
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Spice	Kolendra	15 g	Boil	10 min
Spice	Curacao	15 g	Boil	10 min