

Ray blonde

- Gravity **9.8 BLG**
- ABV **3.8 %**
- IBU **45**
- SRM **4.6**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	2.7 kg (67.5%)	80.5 %	2
Grain	Žytni	1 kg (25%)	85 %	8
Grain	Cookie	0.3 kg (7.5%)	--- %	70

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northdown	10 g	60 min	8.2 %
Boil	Huell Melon	25 g	60 min	7.5 %
Boil	Huell Melon	25 g	20 min	7.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP545 - Belgian Strong Ale Yeast	Ale	Liquid	10 ml	White Labs