Opłatek

- Gravity 11.1 BLG
- ABV ----
- IBU **30**
- SRM 4.7

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 3.5 liter(s) / kg
- Mash size 14.2 liter(s)
- Total mash volume 18.2 liter(s)

Steps

- Temp 62 C, Time 30 min
 Temp 72 C, Time 50 min
 Temp 76 C, Time 1 min

Mash step by step

- Heat up 14.2 liter(s) of strike water to 68C
- Add grains
- Keep mash 30 min at 62C
- Keep mash 50 min at 72C
- Keep mash 1 min at 76C
- Sparge using 15.2 liter(s) of 76C water or to achieve 25.3 liter(s) of wort

Fermentables

Туре	Name	Amount	Yield	EBC
Grain	Pale Ale	2.05 kg <i>(50.6%)</i>	80 %	4
Grain	Oats, Flaked	1.2 kg <i>(29.6%)</i>	80 %	2
Grain	Rye, Flaked	0.6 kg <i>(14.8%)</i>	78.3 %	4
Grain	Weyermann - Carared	0.2 kg (4.9%)	75 %	45

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	15 g	60 min	7 %
Boil	Citra	40 g	5 min	7 %
Boil	Citra	30 g	10 min	7 %

Yeasts

Name	Туре	Form	Amount	Laboratory
Safbrew S-33	Ale	Slant	100 ml	Safbrew

Extras

Type	Name	Amount	Use for	Time
Type	Italiic	Amount	030 101	

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Water Agent	Gips	l I () d	Mash	
Water Agent	l Gib2	1 + 0 9	i i asii	