

ściepki

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **8.4**

Batch size

- Expected quantity of finished beer **47 liter(s)**
- Trub loss **5 %**
- Size with trub loss **49.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **69.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **34.5 liter(s)**
- Total mash volume **46 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **52 C**, Time **15 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **34.5 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **15 min** at **52C**
- Keep mash **30 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **46.2 liter(s)** of **76C** water or to achieve **69.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (26.1%)	82 %	3
Grain	GOLDEN ALE Viking Malt	2.5 kg (21.7%)	80 %	12
Grain	Rice, Flaked	0.2 kg (1.7%)	70 %	2
Grain	Oats, Flaked	0.2 kg (1.7%)	80 %	2
Grain	Płatki pszeniczne	0.1 kg (0.9%)	85 %	3
Grain	COOKIE Viking Malt 0,5kg	0.5 kg (4.3%)	72 %	50
Grain	red ale	2 kg (17.4%)	75 %	70
Grain	Strzegom Pszeniczny	3 kg (26.1%)	81 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	7.2 %
Boil	Cascade PL	25 g	30 min	4 %
Boil	Jarrylo	25 g	40 min	11.4 %

Whirlpool	Jarrylo	75 g	0 min	11.4 %
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Extras

Type	Name	Amount	Use for	Time
Spice	skórka słodkiej pomarańczy	40 g	Boil	20 min