

## Cienkie jak ... węża - Marasowe Urodzinowe :)

- Gravity **4.8 BLG**
- ABV **1.8 %**
- IBU **9**
- SRM **14.1**
- Style **Scottish Light 60/-**

### 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 **5 %/h**
- Boil size **24.1 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **5.1 liter(s)**
- Total mash volume **6.8 liter(s)**

### Steps

- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **5.1 liter(s)** of strike water to **80.7C**
- Add grains
- Keep mash **60 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **20.7 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	0.5 kg (29.4%)	80 %	16
Grain	Pszeniczny	0.3 kg (17.6%)	85 %	4
Grain	Strzegom Karmel 600	0.3 kg (17.6%)	68 %	601
Grain	Briess - Carapils Malt	0.1 kg (5.9%)	74 %	3
Grain	Oats, Flaked	0.25 kg (14.7%)	80 %	2
Grain	Płatki żytnie	0.25 kg (14.7%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lomik	10 g	45 min	3.8 %
Aroma (end of boil)	Chinook	10 g	5 min	13 %
Dry Hop	Chinook	20 g	4 day(s)	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	100 ml	Fermentum Mobile