

## Kwas epsilon (klon)

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **4**
- SRM **6.4**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **25.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.8 liter(s)**
- Total mash volume **30.6 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **23.8 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **25.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale IREKS	4.8 kg (70.6%)	80 %	6
Grain	Monachijski IREKS	1 kg (14.7%)	80 %	20
Grain	Pszeniczny IREKS	1 kg (14.7%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	10 g	5 min	13.2 %
Boil	Mosaic	10 g	5 min	10 %
Aroma (end of boil)	Equanot	20 g	0 min	12.1 %
Aroma (end of boil)	Simcoe	20 g	0 min	13.2 %
Dry Hop	Mosaic	50 g	5 day(s)	10 %
Dry Hop	Equanot	50 g	5 day(s)	12.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	100 ml	Fermentum Mobile
Sanprobi IBS	Ale	Liquid	2000 ml	IBS

### Notes

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

- Starter z 5 kapsulek (500 ml). Wstępne zakwaszenie kwasem mlekowym do 4,5 pH. Zakwaszanie w kotle 35-36 stopni przez 24 h, potem gotowanie 60 min, z chmieleniem, chłodzenie do 18 st i fermentacja.

Cicha fermentacja 2 x 9l

1. Bez dodatków

2. 2 l sok z klementynek

*Jun 21, 2019, 8:12 PM*