

## Lager po dłuższej przerwie

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **6.9**
- Style **Standard American Lager**

### Batch size

- Expected quantity of finished beer **140 liter(s)**
- Trub loss **5 %**
- Size with trub loss **147 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **177.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **99 liter(s)**
- Total mash volume **132 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **99 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **78C**
- Sparge using **111.1 liter(s)** of **76C** water or to achieve **177.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	5 kg (15.2%)	85 %	22
Grain	Pilzneński	20 kg (60.6%)	81 %	4
Grain	Karmelowy Jasny 30EBC	8 kg (24.2%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	50 g	60 min	4.5 %
Boil	Marynka	50 g	60 min	10 %
Boil	Magnat	50 g	60 min	11.2 %
Aroma (end of boil)	Saaz (Czech Republic)	100 g	3 min	4.5 %
Aroma (end of boil)	Marynka	50 g	3 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	70 g	Mangrove Jack's