

# lager na wiosne

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **59**
- SRM **7.5**
- Style **Premium American Lager**

## Batch size

- Expected quantity of finished beer **76 liter(s)**
- Trub loss **5 %**
- Size with trub loss **79.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **5 %/h**
- Boil size **92 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **63.6 liter(s)**
- Total mash volume **84.8 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **40 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **63.6 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **73C**
- Keep mash **2 min** at **78C**
- Sparge using **49.6 liter(s)** of **76C** water or to achieve **92 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Vienna Malt	13.2 kg (62.3%)	81 %	8
Grain	Munich Malt	8 kg (37.7%)	80 %	18

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Equinox	60 g	35 min	13.4 %
Boil	Citra	30 g	20 min	14.2 %
Boil	Columbus/Tomahawk/Zeus	30 g	30 min	15 %
Boil	Centennial	30 g	75 min	9.7 %
Boil	Perle	30 g	80 min	7.1 %
Boil	Marynka	30 g	50 min	7.5 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	90 min	3.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-189	Lager	Dry	46 g	Saflager