

# Summer Pils

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **38**
- SRM **3.6**
- Style **Classic American Pilsner**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **17 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.15 kg (73.5%)	82 %	4
Grain	Castlemalting - Cara Clair	0.5 kg (8.8%)	78 %	4
Grain	Płatki kukurydziane	1 kg (17.7%)	70 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	25 g	60 min	7.3 %
Boil	Puławski	10 g	10 min	7.3 %
Boil	Izabella	10 g	10 min	7.6 %
Whirlpool	Puławski	15 g	30 min	7.3 %
Whirlpool	Izabella	40 g	30 min	7.6 %
Dry Hop	Idaho 7	50 g	3 day(s)	12.7 %
Dry Hop	Mosaic	50 g	3 day(s)	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM31 Bawarska Dolina	Lager	Slant	100 ml	Fermentum Mobile
Lutra OYL-071	Ale	Slant	50 ml	Omega

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	10 g	Mash	60 min
Water Agent	Chlorek wapnia	3 g	Mash	60 min
Water Agent	Kreda(Redukwas)	2 g	Mash	60 min
Water Agent	Kwas mlekowy 80%	1.3 g	Mash	0 min

### Notes

- Kwas mlekowy 80% 1,3ml do 23l wody do wyśładzania  
 Profil wody (jasne, chmielowe):Ca-106,3/Mg-4/Na-4/Cl-52.9/SO4-156.5/HCO3-71/  
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