

Oslo PILS

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **29**
- SRM **3.9**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **1 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **45 min**
- Evaporation rate **10 %/h**
- Boil size **27 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **5 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **17.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **5 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	5 kg (87%)	81 %	4
Grain	Weyermann - Carapils	0.5 kg (8.7%)	78 %	4
Grain	Weyermann - Vienna Malt	0.25 kg (4.3%)	81 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	45 min	10.5 %
Boil	Spalt	25 g	10 min	5.5 %
Boil	Hallertau Tradition	25 g	10 min	5 %
Whirlpool	Spalt	25 g	10 min	5.5 %
Whirlpool	Hallertau Tradition	25 g	10 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Oslo Kveik	Ale	Slant	80 ml	---