

# Smoked German Pils

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **39**
- SRM **5.2**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **9.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **70C**
- Keep mash **5 min** at **76C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Wędzony bukiem	2 kg (62.5%)	82 %	10
Grain	Viking Pilsner malt	1.2 kg (37.5%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertauer Tradition TB	20 g	60 min	5.5 %
Boil	tettninger TB	10 g	30 min	3.9 %
Boil	Hallertauer Tradition TB	10 g	15 min	5.5 %
Whirlpool	Hallertauer Tradition TB	20 g	15 min	5.5 %
Whirlpool	tettninger TB	40 g	15 min	3.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
lallemand - diamond lager	Lager	Dry	11 g	---

## Notes

- Woda RO modyfikowana kwasem mlekowym:  
zacieranie 12.5L - 2ml  
wysładzanie 9L - 3ml  
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