

# Niemiecki rauchpils

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **38**
- SRM **3.9**
- 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 **90 min**
- Evaporation rate **15 %/h**
- Boil size **18.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.5 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **11.5 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **18.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński Steinbach	2 kg (60.6%)	81 %	4
Grain	Słód Wędzony Steinbach	1.3 kg (39.4%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	80 min	11.5 %
Boil	Hallertau Mittelfruh	10 g	15 min	6.1 %
Boil	Hallertau Mittelfruh	10 g	5 min	6.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	8 g	Fermentis