

# Pils Niemiecki

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- Gravity **13.1 BLG**
- ABV ---
- IBU **28**
- SRM **4.6**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **27.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.9 liter(s)**
- Boil time **85 min**
- Evaporation rate **10 %/h**
- Boil size **36.1 liter(s)**

## Mash information

- Mash efficiency **81 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **20 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **24.3 liter(s)** of **76C** water or to achieve **36.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (84.7%)	83 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (8.5%)	80 %	15
Grain	Weyermann - Carapils	0.3 kg (5.1%)	79 %	4
Grain	zakwaszający Weyermann	0.1 kg (1.7%)	79 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	70 min	10 %
Aroma (end of boil)	Hallertau Spalt Select	10 g	10 min	4.2 %
Aroma (end of boil)	Hallertau Spalt Select	20 g	0 min	4.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager W34/70	Lager	Slant	200 ml	Fermentis
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