

# PILS NIEMIECKI

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- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **42**
- SRM **8**
- Style **Bohemian Pilsener**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

## Steps

- Temp **51 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (43.5%)	81 %	4
Grain	Monachijski	2 kg (43.5%)	80 %	16
Grain	Płatki owsiane	0.4 kg (8.7%)	85 %	3
Grain	Crystal II 200	0.2 kg (4.3%)	71 %	200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Boil	Lublin (Lubelski)	10 g	15 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	5 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	22.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	whirlfloc t	1.2 g	Boil	10 min