

# Toporek4

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **4.3**
- 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **20 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **76C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (85.1%)	80 %	4
Grain	Strzegom Wiedeński	0.5 kg (10.6%)	79 %	10
Grain	Strzegom Karmel 30	0.2 kg (4.3%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bohemie	20 g	60 min	6 %
Boil	Bohemie	20 g	30 min	6 %
Boil	Bohemie	25 g	15 min	6 %
Dry Hop	Bohemie	25 g	5 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa W 34/70	Lager	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	7 g	Boil	15 min