

# Polskie Ale

- Gravity **11.9 BLG**
- ABV ---
- IBU **34**
- SRM **9.7**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **66 C**, Time **90 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **77.5C**
- Add grains
- Keep mash **90 min** at **66C**
- Sparge using **40.6 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	1 kg (10%)	85 %	4
Grain	Strzegom Pilzneński	8 kg (80%)	80 %	4
Grain	Optima Karmel 150	0.5 kg (5%)	80 %	150
Grain	Optima Karmel 30	0.5 kg (5%)	80 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	33 g	60 min	11.5 %
Boil	Perle	50 g	15 min	7 %
Aroma (end of boil)	Perle	50 g	0 min	7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M54 California Lager	Ale	Slant	300 ml	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	10 g	Boil	10 min