

# Polish Extra Stout

- Gravity **13.8 BLG**
- ABV ---
- IBU **57**
- SRM **40**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss --- %
- Size with trub loss --- **liter(s)**
- Boil time **65 min**
- Evaporation rate --- %/h
- Boil size --- **liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio --- **liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **-10.4 liter(s)** of **76C** water

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3.8 kg	80 %	6
Grain	Jęczmień palony	0.2 kg	55 %	1300
Grain	Pszenica prażona	0.2 kg	55 %	1000
Grain	Płatki jęczmienne błyskawiczne	0.4 kg	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga	40 g	60 min	11 %
Aroma (end of boil)	lunga	20 g	10 min	11 %
Aroma (end of boil)	lunga	20 g	0 min	11 %
Dry Hop	lunga	120 g	4 day(s)	11 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
------	------	--------	---------	------

Water Agent	Gips piwowarski	20 g	Mash	60 min
Spice	Kawa świeżo zmielona	25 g	Boil	1 min