

# Gruba

- Gravity **20.5 BLG**
- ABV ---
- IBU **56**
- SRM **107**
- Style **Baltic Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **60 min**

## Mash step by step

- Heat up **24 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **60 min** at **72C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	4 kg (50%)	80 %	8
Grain	Strzegom Monachijski typ II	1 kg (12.5%)	79 %	22
Grain	Strzegom Czekoladowy ciemny	1 kg (12.5%)	68 %	1200
Grain	Strzegom Karmel 600	0.5 kg (6.3%)	68 %	601
Grain	Żytni	0.5 kg (6.3%)	85 %	8
Grain	Jęczmień palony	0.5 kg (6.3%)	55 %	985
Grain	Weyermann - Carawheat	0.5 kg (6.3%)	77 %	97

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	30 g	90 min	13 %
Boil	Chinook	10 g	45 min	13 %
Aroma (end of boil)	Sybilla	30 g	10 min	5.9 %
Aroma (end of boil)	Sybilla	20 g	5 min	5.9 %
Dry Hop	Chinook	10 g	6 day(s)	13 %
Dry Hop	Sybilla	15 g	4 day(s)	5.9 %

## Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Danstar - Nottingham	Ale	Dry	22 g	Danstar