

# 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           |