

## 3# Czorno pszenico

- Gravity **9.5 BLG**
- ABV ---
- IBU **12**
- SRM **28.6**
- Style **Dunkelweizen**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

### Steps

- Temp **44 C**, Time **20 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **12.9 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **45 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **23.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount      | Yield | EBC  |
|-------|----------------------------|-------------|-------|------|
| Grain | Weyermann pszeniczny jasny | 4 kg (93%)  | 80 %  | 6    |
| Grain | Strzegom Czekoladowy 1200  | 0.3 kg (7%) | 68 %  | 1202 |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Fuggles | 25 g   | 60 min | 4.5 %      |

### Yeasts

| Name                | Type  | Form   | Amount | Laboratory       |
|---------------------|-------|--------|--------|------------------|
| FM40 Pszeniczny Łan | Wheat | Liquid | 30 ml  | Fermentum Mobile |

### Extras

| Type        | Name     | Amount | Use for | Time      |
|-------------|----------|--------|---------|-----------|
| Water Agent | guwno XD | 700 g  | Primary | 50 day(s) |