

Czarny Piotruś

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **13**
- SRM **24.3**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **18.5 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.8 liter(s)** of strike water to **47C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pszeniczny | 2 kg (54.1%) | 81 % | 6 |
| Grain | Strzegom Pilzneński | 1 kg (27%) | 80 % | 4 |
| Grain | Strzegom Karmel 150 | 0.5 kg (13.5%) | 75 % | 150 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (5.4%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Lublin (Lubelski) | 15 g | 40 min | 4 % |
| Boil | Oktawia | 15 g | 10 min | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|-------|------|--------|------------|
| Safbrew WB-06 | Wheat | Dry | 11.5 g | Safbrew |