

Czarne Żniwa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **18**
- SRM **18.3**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **22.2 liter(s)**

Steps

- Temp **44 C**, Time **20 min**
- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **16.6 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**
- Keep mash **1 min** at **78C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Weyermann pszeniczny jasny | 3 kg (54.1%) | 80 % | 6 |
| Grain | Monachijski | 2 kg (36%) | 80 % | 16 |
| Grain | Strzegom Karmel 150 | 0.2 kg (3.6%) | 75 % | 150 |
| Grain | Strzegom Karmel 600 | 0.35 kg (6.3%) | 68 % | 600 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil | Hallertauer Tradition | 45 g | 30 min | 5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|-------|------|--------|------------|
| Mauribrew Weiss Y1433 | Wheat | Dry | 11.5 g | Mauribrew |

Notes

- Zacieranie:
 - 20 minut w 44°C
 - 45 minut w 63°C
 - 20 minut w 72°C
 - 1 minuta wygrzew
- Apr 30, 2018, 10:38 PM*