

Wędzona ciemna pszenica

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **21**
- SRM **17.3**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **44 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **15 min** at **44C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|----------------|-------|-----|
| Grain | Pilzneński | 2.1 kg (45.7%) | 81 % | 4 |
| Grain | Pszeniczny | 1 kg (21.7%) | 85 % | 4 |
| Grain | Grodziski pszeniczny wędzony dębem | 1 kg (21.7%) | 80 % | 3 |
| Grain | cookie | 0.2 kg (4.3%) | 80 % | 70 |
| Grain | Fawcett - Pale Chocolate | 0.15 kg (3.3%) | 71 % | 600 |
| Grain | Jęczmień palony | 0.15 kg (3.3%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | lunga | 20 g | 40 min | 10 % |
| Boil | Sybilla | 10 g | 15 min | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

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|------------------------|-------|-------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Slant | 150 ml | Fermentum Mobile |
|------------------------|-------|-------|--------|------------------|