

Wesoła Smoła

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **43**
- SRM **48.2**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.5 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **68 C**, Time **15 min**
- Temp **68 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **76.3C**
- Add grains
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **68C**
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **25.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|--------------------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale | 4.1 kg (54.3%) | 79 % | 6 |
| Grain | Słód Wędzony Steinbach | 1.25 kg (16.6%) | 80 % | 5 |
| Grain | Brown Malt (British Chocolate) | 0.4 kg (5.3%) | 70 % | 128 |
| Grain | Chocolate Malt (UK) | 0.4 kg (5.3%) | 73 % | 887 |
| Grain | Fawcett - Pale Chocolate | 0.4 kg (5.3%) | 71 % | 600 |
| Grain | Jęczmień palony | 0.5 kg (6.6%) | 55 % | 985 |
| Adjunct | Briess - Barley Flakes | 0.5 kg (6.6%) | 70 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Target | 45 g | 60 min | 10.5 % |

Yeasts

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

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|-------|-----|-----|--------|--------|
| US-05 | Ale | Dry | 11.5 g | Safale |
|-------|-----|-----|--------|--------|