

# Smolarz

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- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **24**
- SRM **23.4**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **25.8 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **74C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC |
|-------|--------------------------------|----------------|-------|-----|
| Grain | Słód Wędzony Steinbach         | 3 kg (46.5%)   | 80 %  | 5   |
| Grain | Brown Malt (British Chocolate) | 1 kg (15.5%)   | 70 %  | 128 |
| Grain | Płatki owsiane                 | 0.6 kg (9.3%)  | 85 %  | 3   |
| Grain | Jęczmień palony                | 0.25 kg (3.9%) | 55 %  | 985 |
| Grain | Płatki pszeniczne              | 0.6 kg (9.3%)  | 85 %  | 3   |
| Grain | Viking Pale Ale malt           | 1 kg (15.5%)   | 80 %  | 5   |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Willamette | 20 g   | 20 min | 5 %        |
| Boil    | Marynka    | 20 g   | 60 min | 10 %       |

## Yeasts

| Name                 | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale  | Dry  | 11 g   | Danstar    |