

Noc

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **54**
- SRM **26**
- Style **American 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 **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **25.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **35 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **35 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.8 kg (74.4%) | 80 % | 5 |
| Grain | Płatki owsiane | 0.2 kg (3.1%) | 85 % | 3 |
| Grain | Strzegom Czekoladowy jasny | 0.1 kg (1.6%) | 68 % | 400 |
| Grain | Jęczmień palony | 0.1 kg (1.6%) | 55 % | 985 |
| Grain | Carafa II | 0.25 kg (3.9%) | 70 % | 812 |
| Grain | Weyermann - Carafa I | 0.1 kg (1.6%) | 70 % | 690 |
| Grain | Pszeniczny | 0.2 kg (3.1%) | 85 % | 4 |
| Grain | Strzegom Karmel 150 | 0.5 kg (7.8%) | 75 % | 150 |
| Grain | Płatki pszeniczne | 0.2 kg (3.1%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Amarillo | 30 g | 60 min | 9.5 % |
| Boil | Amarillo | 20 g | 30 min | 9.5 % |

| | | | | |
|---------|---------|------|----------|------|
| Boil | Mosaic | 30 g | 15 min | 10 % |
| Dry Hop | Cascade | 50 g | 4 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 900 ml | Fermentum Mobile |