

Quadrupel

- Gravity **24.4 BLG**
- ABV **11.3 %**
- IBU **24**
- SRM **24.4**
- Style **Belgian Dark Strong Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **13 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

Steps

- Temp **62 C**, Time **20 min**
- Temp **66 C**, Time **30 min**
- Temp **71 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **20 min** at **62C**
- Keep mash **30 min** at **66C**
- Keep mash **15 min** at **71C**
- Keep mash **5 min** at **77C**
- Sparge using **5.9 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|-----------------|--------|-----|
| Grain | Pilzneński | 3.6 kg (59.5%) | 81 % | 4 |
| Grain | Strzegom Wiedeński | 0.7 kg (11.6%) | 79 % | 10 |
| Grain | Pszeniczny | 0.4 kg (6.6%) | 85 % | 4 |
| Grain | Carahell | 0.2 kg (3.3%) | 77 % | 26 |
| Grain | Biscuit Malt | 0.2 kg (3.3%) | 79 % | 45 |
| Grain | Special B Malt | 0.2 kg (3.3%) | 65.2 % | 315 |
| Sugar | Candi Sugar | 0.75 kg (12.4%) | 78.3 % | 200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | Hallertau | 20 g | 60 min | 5.4 % |
| Boil | East Kent Goldings | 20 g | 60 min | 5.1 % |