

jasne z czekoladowym

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **8.1**

Batch size

- Expected quantity of finished beer **58 liter(s)**
- Trub loss **0 %**
- Size with trub loss **58 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **70.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33.9 liter(s)**
- Total mash volume **45.2 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **33.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **47.6 liter(s)** of **76C** water or to achieve **70.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------|---------------|-------|-----|
| Grain | Pilzneński | 11 kg (97.3%) | 90 % | 4 |
| Grain | karmelowy | 0.3 kg (2.7%) | 90 % | 600 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | fuggles | 25 g | 55 min | 14.1 % |
| Boil | lunga | 30 g | 30 min | 9.6 % |
| Aroma (end of boil) | lubelski | 35 g | 5 min | 2.6 % |
| Aroma (end of boil) | fuggles | 35 g | 5 min | 5.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------|
| s-04 | Ale | Slant | 300 ml | safale |