

KBS po mojemu

- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **51**
- SRM **52.8**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **21.2 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.6 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **68 C**, Time **75 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **75 min** at **68C**
- Keep mash **5 min** at **76C**
- Sparge using **8.6 liter(s)** of **76C** water or to achieve **21.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 6 kg (75.9%) | 79 % | 6 |
| Grain | Płatki owsiane | 0.7 kg (8.9%) | 85 % | 3 |
| Grain | Jęczmień palony | 0.35 kg (4.4%) | 55 % | 985 |
| Grain | Castle Czekoladowy | 0.35 kg (4.4%) | 60 % | 900 |
| Grain | Weyermann - Dehusked Carafa III | 0.25 kg (3.2%) | 70 % | 1024 |
| Grain | Caraaroma | 0.25 kg (3.2%) | 78 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 60 min | 15.5 % |
| Boil | Fuggles | 20 g | 25 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|-------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 250 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------------------|--------|-----------|-----------|
| Flavor | Czekolada gorzka LINDT | 60 g | Boil | 15 min |
| Flavor | Ziarna kakaowca | 40 g | Boil | 15 min |
| Flavor | Kawa Brazil Mogiana | 50 g | Boil | 0 min |
| Flavor | Kawa ??? | 50 g | Secondary | 14 day(s) |
| Flavor | Płatki bourbon | 45 g | Secondary | 14 day(s) |