

Dawid czy tam Goliat

- Gravity **23.3 BLG**
- ABV ---
- IBU **86**
- SRM **83.1**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **31.9 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **11.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|--------|-----|
| Grain | Pilzneński | 5.4 kg (59.3%) | 81 % | 4 |
| Grain | Briess - Smoked Malt | 0.57 kg (6.3%) | 80.5 % | 10 |
| Grain | Czekoladowy | 0.685 kg (7.5%) | 60 % | 788 |
| Grain | Jęczmień palony | 0.8 kg (8.8%) | 55 % | 985 |
| Grain | Aroma CastleMalting | 0.4 kg (4.4%) | 78 % | 100 |
| Grain | Płatki owsiane | 0.8 kg (8.8%) | 85 % | 3 |
| Grain | Caramel/Crystal Malt | 0.45 kg (4.9%) | 75 % | 120 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 50 g | 60 min | 15.5 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 50 g | 10 min | 15.5 % |
| Aroma (end of boil) | Simcoe | 50 g | 1 min | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------------|------|--------|---------|------------|
| WLP001 - California Ale Yeast | Ale | Liquid | 1000 ml | White Labs |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------------|--------|---------|--------|
| Flavor | Cukier muscovado | 622 g | Boil | 15 min |