

Black Hole RIS

- Gravity **20.9 BLG**
- ABV ---
- IBU **105**
- SRM **40**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **35 %**
- Size with trub loss **16.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **18.6 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

Steps

- Temp **40 C**, Time **15 min**
- Temp **65 C**, Time **70 min**
- Temp **75 C**, Time **15 min**

Mash step by step

- Heat up **22.2 liter(s)** of strike water to **43.3C**
- Add grains
- Keep mash **15 min** at **40C**
- Keep mash **70 min** at **65C**
- Keep mash **15 min** at **75C**
- Sparge using **3.8 liter(s)** of **76C** water or to achieve **18.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|--------|------|
| Grain | Strzegom Pale Ale | 4 kg (50.6%) | 79 % | 6 |
| Grain | Caraaroma | 0.5 kg (6.3%) | 78 % | 400 |
| Grain | Jęczmień palony | 0.5 kg (6.3%) | 55 % | 985 |
| Grain | Strzegom Karmel 30 | 0.5 kg (6.3%) | 75 % | 30 |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (6.3%) | 68 % | 1200 |
| Grain | Żytni wędzony | 0.5 kg (6.3%) | 85 % | 6 |
| Grain | Barley, Flaked | 0.4 kg (5.1%) | 70 % | 4 |
| Grain | Oats, Flaked | 0.5 kg (6.3%) | 80 % | 2 |
| Sugar | Candi Sugar, Amber | 0.5 kg (6.3%) | 78.3 % | 148 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 25 g | 60 min | 12 % |
| Boil | lunga | 25 g | 60 min | 11 % |
| Boil | Magnum | 30 g | 60 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-05 | Ale | Slant | 100 ml | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------------|--------|-----------|-----------|
| Water Agent | Gips | 10 g | Mash | --- |
| Flavor | Płatki dębowe whiskey | 30 g | Secondary | 30 day(s) |