

Back In Black

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **44**
- SRM **33.7**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (62.5%)	81 %	4
Grain	Viking Pale Ale malt	1 kg (25%)	80 %	5
Grain	Słód pszeniczny czekoladowy	0.2 kg (5%)	70 %	900
Grain	Słód żytni, czekoladowy	0.2 kg (5%)	70 %	650
Grain	Słód jęczmienny barwiący Viking Malt	0.1 kg (2.5%)	1 %	1450

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Aroma (end of boil)	Columbus/Tomahawk/Zeus	20 g	5 min	15.5 %
Aroma (end of boil)	Amarillo	15 g	5 min	9.5 %
Aroma (end of boil)	Cascade	15 g	5 min	6 %
Aroma (end of boil)	Mosaic	15 g	5 min	10 %
Whirlpool	Amarillo	15 g	0 min	9.5 %
Whirlpool	Cascade	15 g	0 min	6 %
Whirlpool	Mosaic	45 g	0 min	10 %