

**por.**

- Gravity **22.9 BLG**
- ABV **10.4 %**
- IBU **49**
- SRM **54.7**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **18 %/h**
- Boil size **29.7 liter(s)**

### Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **29.5 liter(s)**
- Total mash volume **41.3 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	9 kg (74.4%)	79 %	10
Grain	Karmelowy Pszeniczny Strzegom	1.2 kg (9.9%)	79 %	130
Grain	Abbey Malt Weyermann	0.5 kg (4.1%)	75 %	45
Grain	Strzegom Czekoladowy ciemny	0.4 kg (3.3%)	68 %	1200
Grain	Caraaroma	0.3 kg (2.5%)	78 %	400
Grain	Jęczmień palony	0.3 kg (2.5%)	55 %	985
Grain	Weyermann - Dehusked Carafa II	0.1 kg (0.8%)	70 %	837
Sugar	Candi Sugar, Dark	0.3 kg (2.5%)	78.3 %	542

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	50 g	60 min	11.5 %
Aroma (end of boil)	Chinook	20 g	15 min	11 %
Aroma (end of boil)	Chinook	20 g	0 min	11 %