

#13 Grodziski Twist

- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **17**
- SRM **3.3**
- Style **Grodziskie/Graetzer**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **7 %**
- Size with trub loss **40.7 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **50.1 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **39 C**, Time **50 min**
- Temp **51 C**, Time **20 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **15 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **41.7C**
- Add grains
- Keep mash **50 min** at **39C**
- Keep mash **20 min** at **51C**
- Keep mash **30 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **35.1 liter(s)** of **76C** water or to achieve **50.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|----------------|-------|-----|
| Grain | Grodziski pszeniczny wędzony dębem | 2.1 kg (35%) | 78 % | 8 |
| Grain | Viking Wheat Malt | 2.5 kg (41.7%) | 80 % | 5 |
| Grain | Słód Wędzony Steinbach | 1.4 kg (23.3%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Magnum | 15 g | 60 min | 10.5 % |
| Boil | Sybilla | 30 g | 20 min | 3.5 % |
| Aroma (end of boil) | Galaxy | 10 g | 5 min | 15 % |
| Dry Hop | Simcoe | 30 g | 5 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| us-05 | Ale | Slant | 200 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------|---------|-----------|----------|
| Fining | karuk | 99999 g | Secondary | 5 day(s) |