

Teutonic Atomic

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **37**
- SRM **3.6**
- Style **German Pilsner (Pils)**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **76 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **26.9 liter(s)**
- Total mash volume **31.8 liter(s)**

Steps

- Temp **63 C**, Time **90 min**
- Temp **71 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **26.9 liter(s)** of strike water to **66.9C**
- Add grains
- Keep mash **90 min** at **63C**
- Keep mash **30 min** at **71C**
- Keep mash **10 min** at **78C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|-----|
| Grain | Rahr - Premium Pilsner Malt | 4.1 kg (83.7%) | 80 % | 3 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (10.2%) | 79 % | 16 |
| Grain | Weyermann - Carapils | 0.3 kg (6.1%) | 78 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Citra | 15 g | 60 min | 11.6 % |
| Boil | Ahtanum | 10 g | 20 min | 4.7 % |
| Boil | Amarillo | 10 g | 20 min | 7.7 % |
| Boil | Ahtanum | 15 g | 10 min | 4.7 % |
| Boil | Amarillo | 15 g | 10 min | 7.7 % |
| Aroma (end of boil) | Ahtanum | 15 g | 5 min | 4.7 % |
| Aroma (end of boil) | Amarillo | 15 g | 5 min | 7.7 % |
| Aroma (end of boil) | Citra | 35 g | 0 min | 11.6 % |
| Aroma (end of boil) | Ahtanum | 10 g | 0 min | 4.7 % |

| | | | | |
|---------------------|----------|------|-------|-------|
| Aroma (end of boil) | Amarillo | 10 g | 0 min | 7.7 % |
|---------------------|----------|------|-------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------------|-------|--------|--------|------------|
| WLP838 - Southern German Lager Yeast | Lager | Liquid | 250 ml | White Labs |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------|--------|---------|--------|
| Fining | Whirlfloc | 2 g | Boil | 15 min |