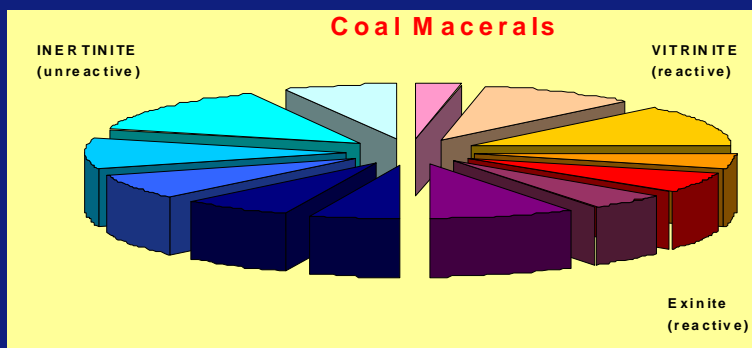




Reductants, Fuels and Reactivity Evaluations

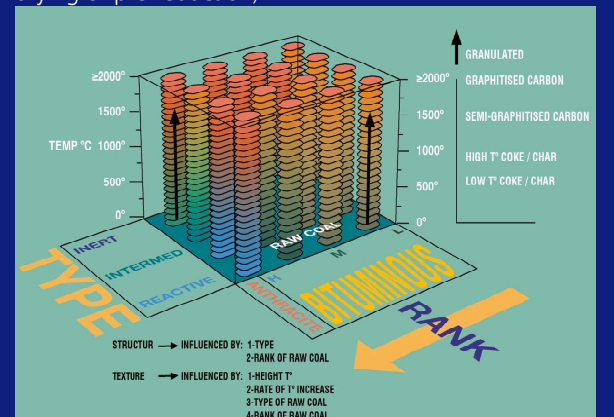
Are you using the best raw materials for your processing task? Are you sure you are getting full economic value from your carbon source? If you are unsure, consider the following:

Traditionally, consumers of carbonaceous reductants and fossil fuels have usually regarded the carbon contained in their raw material as "amorphous" carbon, since it is **neither diamond nor graphite** it has to be the third allotrope, or so we all thought. Evaluations have therefore been generally made on the basis of calorific value (CV) and the proximate analysis (% fixed carbon, % volatile matter, % ash and % moisture). Over time users have slowly realized that different materials can behave vastly differently in a variety of applications in spite of identical CV's and proximate analyses.



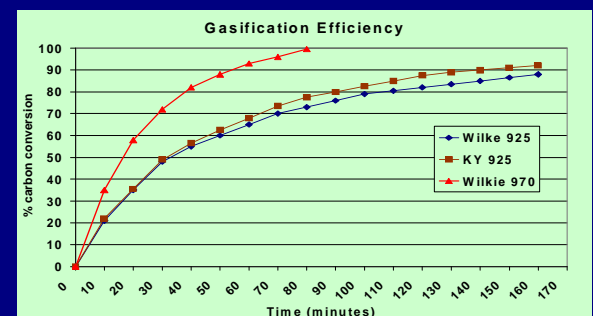
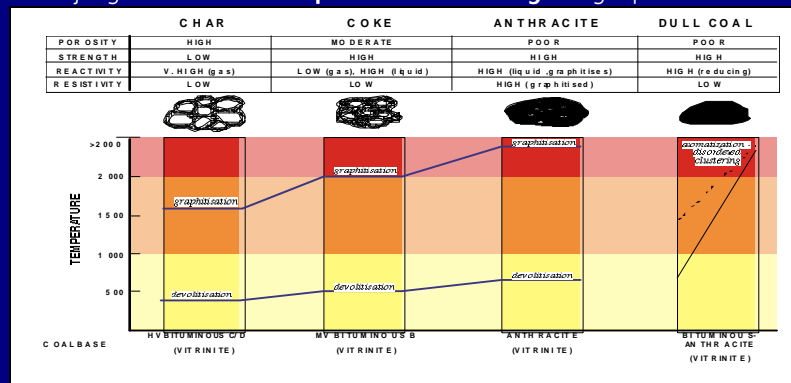
Key Capabilities...

The optimum selection of the carbon source for a particular process relies on firstly a complete **understanding of the desirable properties of the process application**. A coal that combusts readily and ignites easily is likely not the best choice as a furnace reductant in ferro-alloy production. Similarly a coal with excellent "coking" properties may make a good reductant in a blast furnace, but it will be spectacularly unreactive as fuel in a burner for a rotary kiln (e.g. drying or pre-reduction).



To complicate "carbon" selection even further, coals from different geographic locations, though outwardly identical (at least in terms of the traditional specification methods (e.g. CV) can prove vastly different in practice, and rectification of a long-term contract for "coal" can prove costly. Test results obtained in one location are not transferable to another. The risk of an incorrect choice and the consequences alone should prompt any project manager to ensure that the reagent selection has been made on the basis of sound judgement based on **representative testing** along reproducible lines.

A combination of sound understanding of the requirements of a particular process application, the know-how of desired properties in a particular "coal", and the means to test the behaviour of the coal prior to its use are all ingredients of a successful service offered by XPS to **producers and buyers of coal**. Whether you need to know if your current material is the right one for the job, or need advice in selecting the right source of carbon for your application, XPS can assist you in making the right choice specific to your process needs.



Contact Us...

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