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Polysiloxane-containing binders, manufacture thereof, coating agents containing them, and use thereof

Description of Technology: The invention relates to polysiloxane-containing binders suitable for preparing coating agents. Coating agents of this kind are particularly suitable for producing dirt-repellent coatings, e.g. for producing anti-graffiti coatings.

Patent Listing:

1. **US Patent No. 5,426,151,** Issued on June 20, 1995, "Polysiloxane-containing binders, manufacture thereof, coating agents containing them, and use thereof."

http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=5,426,151.PN.&OS=PN/5,426,151&RS=PN/5,426,151

Market Potential: In recent years, the public has repeatedly been confronted with the problem of undesired graffiti produced by spraying and frequently disfiguring public buildings and vehicles in particular. In most cases they cannot be eliminated simply by washing; usually the graffiti-bearing walls have to be repainted, which is laborious and expensive.

The object of the invention is to provide polymers or binders suitable for dirt-repellent coatings which are non-toxic and retain their dirt-repellent effect for a long period of e.g. several years.

It has been shown that this problem can be solved by preparing coating agents in which the binder or binder component comprises one or more reaction products obtained by polymerisation of radically polymerisable monomers in the presence of polysiloxanes containing functional groups, the polysiloxanes being free from --Si--OH and --Si--OR' (R'=alkyl).

Bayer AG, based out of Germany, has been developing polyurethane wall coatings over the past ten years and their products have anti-graffiti properties that have longevity. The company's net income for the 2004 fiscal year was 1,361 million Euros (this comes after a net loss in 2003). Abbott Laboratories, Johnson & Johnson, and Pfizer Inc. are competitors to Bayer AG, and likely supply a chemical that is anti-graffiti. One of the more recent methods of combating graffiti has been through the application of polyurethane coatings.

Benefits:

- Non-toxic
- Retain dirt-repellent effect for a long period of time

Applications:

- Graffiti removal.

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